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Report of Proceedings
OF THE
AMERICAN
MINING
CONGRESS



Thirteenth Annual Session
LOS ANGELES, CAL., SEPT. 26-OCT. 1, 1910



Published by the American Mining Congress
at the office of the Secretary, Denver, Colo.

REPORT OF PROCEEDINGS

OF THE

American Mining Congress

THIRTEENTH ANNUAL SESSION

LOS ANGELES, CAL., SEPT. 26-OCT. 1

1910



Published by the American Mining Congress

At the Office of the Secretary, Denver, Colo.

SESSIONS OF THE CONGRESS HAVE BEEN HELD AS FOLLOWS:

	DATE	CITY	PRESIDENT	ADDRESS	REMARKS
First.....	July, 1897.....	Denver, Colo.....	Hon. Alva Adams.....	Pueblo, Colo.....	Temporary.
First.....	July, 1897.....	Denver, Colo.....	Hon. L. Bradford Prince.....	Santa Fe, N. M.....	
Second.....	July, 1898.....	Salt Lake, Utah.....	Hon. L. Bradford Prince.....	Santa Fe, N. M.....	
Third.....	July, 1899.....	Milwaukee, Wis.....	Col. B. F. Montgomery.....	Cripple Creek, Colo... }	Passed to June, 1900.
Third.....	June, 1900.....	Milwaukee, Wis.....	Col. B. F. Montgomery.....	Cripple Creek, Colo... }	
Fourth.....	July, 1901.....	Boise, Idaho.....	Hon. L. Bradford Prince.....	Santa Fe, N. M.....	
Fifth.....	Sept., 1902.....	Butte, Mont.....	E. L. Shafner.....	Cleveland, Ohio.....	
Sixth.....	Sept., 1903.....	Deadwood and Lead, S.D.	Hon. J. H. Richards.....	Boise, Idaho.....	
Seventh.....	Aug., 1904.....	Portland, Ore.....	Hon. J. H. Richards.....	Boise, Idaho.....	
Eighth.....	Nov., 1905.....	El Paso, Texas.....	Hon. J. H. Richards.....	Boise, Idaho.....	
Ninth.....	Oct., 1906.....	Denver, Colo.....	Hon. J. H. Richards.....	Boise, Idaho.....	
Tenth.....	Nov., 1907.....	Joplin, Mo.....	Hon. J. H. Richards.....	Boise, Idaho.....	
Eleventh.....	Dec., 1908.....	Pittsburg, Pa.....	Hon. J. H. Richards.....	Boise, Idaho.....	
Twelfth.....	Oct., 1909.....	Goldfield, Nev.....	Hon. J. H. Richards.....	Boise, Idaho.....	
Thirteenth..	Oct., 1910.....	Los Angeles, Cal.....	Dr. E. R. Buckley.....	Rolla, Mo.....	

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Resolution No.	Introduced Page.	ReportPage. Out. rted	SUBJECT.	DISPOSITION.
1	35	50	Safety in Mining.....	Adopted.
2	35	50	Laboratory, Bureau of Mines.....	Adopted.
3	36	50	Investigations of Bureau of Mines.....	Adopted.
4	36	132	Official Reports of Mining Companies.....	Substitute adopted.
5	36	132	Publications of Bureau of Mines.....	Adopted.
6	36	132	Examination of Claims in National Forests.....	Adopted.
7	38	133-155	Liability Laws.....	Substitute adopted.
8	39	51	Appreciation for Creation of Mining Bureau.....	Adopted.
9	40	51	Desert Water Supplies.....	Adopted.
10	40	85	Leasing System of Public Lands.....	Substitute adopted.
11	41	85	Lease of Mineral Lands.....	Tabled.
12	41	85	Protest of Claims by Forestry Department.....	Substitute adopted.
13	42	85	Lease of Mineral Lands.....	Tabled.
14	42	158	Problems of Oil Miners.....	Adopted.
15	45	133	Publicity System for Protection of Investors.....	Adopted.
16	47	85	Co-operation Between Coal Producers.....	Tabled.
17	48	60	Freight Rates.....	Amended and adopted.
18	49	138	Asking Federal Aid in Building Dams and Tunnels.....	Tabled.
19	51	51	Appreciation of Work of Geological Survey.....	Adopted.
20	52	154	Problems of Oil Miners.....	Adopted.
21	52	59	International Panama Exposition.....	Substitute adopted.
22	53	85	Developing Water Powers.....	Substitute adopted.
23	53	85	Preventing Miner's Phthisis.....	Substitute adopted.
24	55	85	State Regulation of Resources.....	Referred to Bureau of Mines.
25	55	85	Restrictions on Location of Mineral Claims.....	Substitute adopted.
26	55	85	Land Office Rulings and Oil Lands.....	Substitute adopted.
27	67	154	National Industrial Exposition.....	No. 36 substituted.
28	70	160	Location of Oil Lands.....	Tabled.
29	70	154	Development of Oil Lands.....	Covered by other Resolutions.
30	71	155	Southern Pacific Oil Lands.....	No. 36 substituted.
31	72	153	Power Sites on Colorado River.....	Adopted.
32	72	156	National Parks in Mineral Areas.....	No. 37 substituted.
33	73	156	Washington Coal Lands.....	Adopted.
34	124	156	Government Smelters.....	Embodied in other Resolutions.
35	135	155	Prospecting in National Forests.....	Tabled.
36	154	154	California Oil Lands.....	Adopted.
37	153	161	Power Sites on Colorado River.....	Adopted.
38	154	154	Resolution of Thanks.....	Tabled.
39	158	163	1911 Convention.....	Adopted.
40	165	165	Los Angeles Times Explosion.....	Amended and adopted.
41	168	168	Resolution of Thanks to Mr. Pinchot.....	Adopted.

Official Roster, 1910

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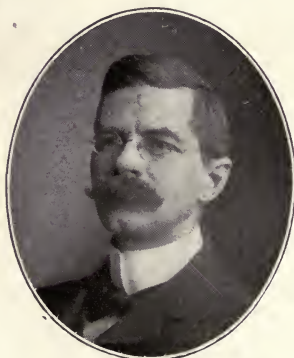
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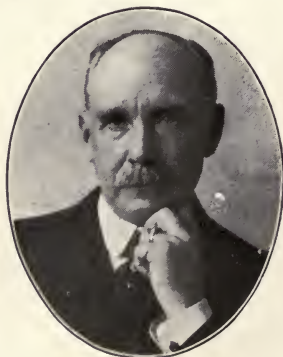
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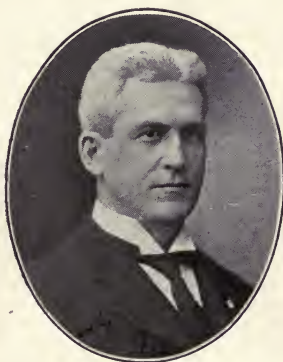
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REPORT OF THE PROCEEDINGS

OF THE

Thirteenth Annual Session of the American Mining Congress

Held at Los Angeles, California
September 26 to October 1, Inclusive, 1910

MONDAY, SEPTEMBER 26, 1910.

Opening Session.

10:00 O'clock A. M.

PRESIDENT BUCKLEY: The Thirteenth Annual Session of the American Mining Congress will please be in order.

The invocation which was to be given by the Rev. Baker P. Lee must be dispensed with, owing to the fact that that gentleman was obliged to leave before the opening of this session.

Ladies and Gentlemen: It gives me very great pleasure this morning to introduce to you Hon. Alden Anderson, who will extend the address of welcome on behalf of the State of California.

GOVERNOR ANDERSON: Mr. President, Ladies and Gentlemen: I am first charged with the duty of expressing to you the keen regret of Governor Gillette at his inability to be present to extend the welcome to you in person. Governor Gillette, as all true Californians are, is greatly interested in the industry which you represent. It matters not whether they are natives or whether they are citizens by adoption, Californians absorb, as it were, the interest in your industry. I myself am not directly interested in mining, but I claim my due share of that interest. I am the son of a pioneer, one of those men who, when they heard the news of the finding of that nugget by Marshall, which news electrified the civilized world and turned the tide of Anglo-Saxon immigration to our shores, braved the hardships of the desert and of the ocean, to come here to delve into our mountains for the hidden treasures. I am also a son-in-law of one of the men who camped upon the Comstock lode, and there, in the absence of a better method, panned off the claims which they afterwards developed and which made mining on this western slope a passport with respect to great doings throughout the world. But times have changed since then, and you today are interested in the same industry, although adding many other minerals to your list than the one which attracted our forefathers to this coast. You have your problems to work out and you must keep abreast of the times.

I know of no better illustration of the changes that have been wrought in the mining world than those mighty dredges now being operated almost within hailing distance of the spot where Marshall picked up that nugget—those immense machines, involving an expenditure of over nine million dollars, running night and day upon that very soil where those men worked, and obtained, in paying quantities, that for which they sought. I have watched those machines at their

work. I know little of mining, but it was a great demonstration to me of the changes that are taking place. One of the most interesting things to see was, among the other things that they preserved, that they obtained from the land shot from a small No. 9 to BB, and bullets of the .22 calibre and old slugs from the rifles used by those men in the places where they hunted and spent their days in their pastimes, little thinking that the shot which they then expended would be later recovered. It only suggested to my mind the great possibilities, if you are successful in your endeavors, of the things that will yet be done. A few weeks ago I was in the town of Redding, in the northern portion of this state. I happened to be in a foundry, and I saw tons of iron which I was informed had been reduced by the electrical process in a town near that city. I was informed that in quality it was second to none of its class, but that, commercially, as yet it was not upon a paying basis.

You gentlemen are creators of wealth. The things that you obtain come from no other man. You are entitled to the consideration and the support of all the people engaged in legitimate enterprise. I hope that in those problems you have to solve you will work together, that you will give your practical experience to those who have possession of the theoretical facts, and that you will work your problems out upon lines that will do the most good to those interested in the industry and to the whole country.

I am glad indeed that you are holding this session here in Los Angeles, the hospitality of whose people and the geniality of whose climate are household words throughout the nation and whose marvelous development and magnificent enterprise and faith in themselves are the pride of the people of California.

Again, in the name of all the people of this great state, I welcome you to your labors, and wish for you a most harmonious and beneficial session.

I thank you. (Applause.)

PRESIDENT BUCKLEY: It is my pleasure now to introduce to you Mayor George Alexander of Los Angeles, who will make the address of welcome on behalf of this beautiful city.

MAYOR ALEXANDER: Mr. Chairman, Ladies and Gentlemen and Delegates to the American Mining Congress: I assure you that it gives me great pleasure this morning to welcome to the city of Los Angeles the delegates and members of this Congress. When we look back sixty years—for that is about the time when the mining industry in this state started—we can see the great things that have been accomplished by you people, but when we look back for only fifteen years, in addition to mining for the precious metals we find the oil industry, and we are simply amazed.

This Congress is one of the greatest congresses or conventions that has ever met with us, and we are very much pleased to have you with us. You have grave and important subjects to discuss, and the solution of the problems before you will benefit the whole country. When we look at the future and consider what will happen when we have the Panama canal, with the oil fields and the mines and all the good things we have on the Pacific coast, we can hold up our heads and tell the people of the world that they do not know what we have, and to come and see us. Los Angeles is always ready and glad to have these meetings. We are a hospitable people—we pride ourselves in that. We want to make you feel that you are at home here, and during your deliberations here of course you will be busy, but you will be at leisure to some extent. When you are not busy here we would like to entertain you. We want you to see Southern California, we want you to see Los Angeles, and we want you to see the Pacific coast generally. We have many things here that you do not have in the eastern and northern countries. We have beautiful orange groves and many things that are

rare in some parts of our country. We have the best electric suburban car system, I believe, in the world.

Now, it gives me great pleasure, ladies and gentlemen, to tender to you the freedom of this city; and, Mr. President, I want to present to you the key to the city of Los Angeles. We hope you will enjoy yourselves here and have such a good time that you will be glad to come again.

I thank you. (Applause.)

PRESIDENT BUCKLEY: Mr. Mayor, I assure you that the members of the American Mining Congress, the delegates and the ladies, will all use this key judiciously, and that it will not be used for any purpose that you might think questionable in your administration.

MAYOR ALEXANDER: I do not doubt that.

PRESIDENT BUCKLEY: I understand that the mayor of this city has his eye on every corner and every crevice of the city's industrial and other activities, and I might say, as a word of caution to the members and delegates present, that they may expect to find His Honor, the mayor, at every lamp-post should they be conducting any business which might not be consistent with the regulations of the city of Los Angeles. I promised my friends that in making these introductory remarks I would not make a speech, and for that reason I will simply thank the mayor of the city of Los Angeles for this very generous welcome and assure him that we will take very great pleasure in visiting the various places of entertainment which Los Angeles and the Pacific Coast provide for the people of the east and of the central states who come to this most delightful climate.

I now have the pleasure, ladies and gentlemen, of introducing to you the president of the Chamber of Commerce, Honorable Joseph Scott of Los Angeles.

HON. JOSEPH SCOTT: Mr. President, Ladies and Gentlemen: You have received a welcome on the part of the state and on the part of the city, but it has been thought well that, away from the public side of these questions, there should be injected here for your attention for a moment, the cold-blooded commercial side so that you can understand a little of the activities of this city and this vicinity. We have a great state here; we have a great city here; we are as free from the problem of misgovernment in this city and in this state as most other communities and most other commonwealths. But, outside of all those questions of political activities, there have been cold and stern facts with which we of the commercial world have had to wrestle independently of politics; for, gentlemen, you are here for stern and sober business.

I desire, on behalf of the Chamber of Commerce, of which I happen to be president for the time being, to extend to you a cordial and kindly welcome to examine into our industries and into our conditions, and to take a good view of our city and those parts of the country adjacent to it that you have an opportunity to visit. We have had to wrestle with problems in this vicinity. We have had to conserve our natural resources, and we have had to develop our natural resources. We have had here in this vicinity problems that taxed the strongest of men. We have had to go over two hundred miles away to get water to supply this municipality. We have had to wrestle with the problems of irrigation, and we have had to stand and face the problems of railroad transportation, and all the difficulties that frontier people must face, and we therefore very naturally have a fellow feeling for men of your character. You are the men who have gone out on the frontier of civilization and laid the foundation for the activities that have been developed in that direction; and you are the one class of people, after all, in this world that offer to the poor devil who has not a cent to his name an opportunity to dream, at least, that some day he will be a millionaire; and as I look upon the faces of you men here, and know the

measure of some of you that are locally connected with the organization and the activities of mining here in this country, I say you are a credit to this municipality and a credit to this country, because you are pointing out a way to the man who is inclined to be despondent and depressed and because you give us that splendid evidence of robust American spirit which enables a man to go out in spite of difficulties, in spite of reverses, in spite of depressions, and keep everlasting hope in his heart that the day is coming when he will get what he wants—a competence, not merely for himself but for his loved ones and so that he might share a dollar with the poor devil who has not had the luck he has had to make it.

Now, that is the spirit we want here in Los Angeles; that is the class of citizenship that is making this city. Our good mayor has given you the key to our city, and it is a good city, too, and he is a credit to this municipality. Mining men are honorable men, and they are entitled to the credit of being first-class American citizens, and you have no apology to offer to anyone by reason of the fact that you are in that magnificent enterprise and profession; and I say to you therefore, on behalf of this Chamber, which has a membership of three thousand at this time, which numbers among its ranks every single man in your business who has any standing whatever along this line—I want to say to you that we are glad to see you here; that we recognize in you men who are going to discuss the questions that concern you without the anxieties and disturbances which come to the fellow that cannot play a losing game once in a while. In other words, if you cannot be winners you are going to be philosophical losers, and that is the kind of spirit that we need. Here in the city of Los Angeles we can show you things which have demonstrated the fact that this is one great big country after all. I do not care what part of the east or middle west or the north you come from, you will find on the streets of Los Angeles men who knew you in your home town. This is no pueblo any more.

We are going to show the whole world the biggest gain—and without any padding either—of any city since 1900 that is on the map of the United States today, and it has been produced very largely by the fact that we boost our own game, and we do not wait until the other fellow gets in and helps us. We boost anyhow. So now, gentlemen, if you find others boosting a little, take courage from the lesson I have pointed out to you and boost your game and do not allow any profession, any business, any class of men to say that they can hold a candle to you.

In conclusion let me extend to you all, and particularly the ladies, a cordial invitation to attend the reception in your honor at the Chamber of Commerce tomorrow evening.

PRESIDENT BUCKLEY: The only thing we have to regret is that the other fellows who are on the way are not here.

I take great pleasure in introducing to you Mr. E. A. Montgomery, President of the Sierra Madre club, the club which has so ably managed the local affairs connected with the American Mining Congress in relation of this convention.

MR. MONTGOMERY: It is very gratifying to me to be able to meet with you here today, representatives, as you are, of the mining industry with which we are so proud to be identified.

As a miner, having devoted most of my life to that one industry exclusive of all others, experiencing varied successes and disappointments, mingling with the real miner in all branches of the industry from the prospector to the owner and operator, I can truthfully say that no class of men is our superior. Whether the miner be rich or poor, the quality of the man is so apparent in his whole-souled generosity toward his brother miner and toward all mankind, that men of the mining world become as it were by instinct fraternal brothers; and to be privileged to stand on the floor of this convention, which is the most important convention the American Mining Congress has ever held, and to represent

the mining interests in however small capacity I may be privileged to do, is a great pleasure and honor.

In addressing you as I do, I speak in behalf of the Sierra Madre Club, which is the host on this occasion, and which is responsible for the bringing of the Congress to our city at this time, and under whose auspices the arrangements have been made. The Sierra Madre Club, which is entirely a social organization, with the exception of its members all being members of the American Mining Congress and it thereby being a branch of that great organization, has had less than two years' existence, as the birth of the club took place in November, 1908; and to be delegated to speak in behalf of that club a few words of welcome to the members and visitors of this great Congress, is my privilege and my pleasure.

The members of the Club, like myself, are appreciative of the honor of being members of the American Mining Congress, and of participating in the work of this session of the Congress at our own home; and during the days of this session the doors of the Club will be found open to you at all times.

Some of our distinguished speakers have, without doubt, been greatly inconvenienced by the long journey they have been compelled to make on account of the distance to our city from their homes, and to them all we extend our heartiest thanks and appreciation; and to every delegate who is in attendance during this session we extend a mining man's welcome. I hope you may all realize the importance of being in attendance every day and hour during the session, for at this time the mining man has need to be active in exercising his good judgment and in taking part in discussions on subjects which will so vitally affect the mineral resources of this great nation. We cannot become too well enlightened as to how we should vote when resolutions are offered, as these resolutions will undoubtedly have great influence with our National Congress when legislation is asked. I heartily endorse the American Mining Congress, and hope undivided support may be given it by our western mine and oil operators.

I am, like all my brother miners, appreciative of the ladies; and make special request that they be in regular attendance, as they do us honor by their presence.

I want to thank the citizens of Los Angeles for the part they have taken in sharing with the Club in the entertainment of the Congress, which is evidence of their appreciation of the importance of this convention and what it means to the mining and oil industry, which is now, in California, the greatest industry of the state.

PRESIDENT BUCKLEY: I have had the pleasure on several occasions of passing through what is known as the "Great Southwest," and never knew definitely what was included in that term. I never knew when I passed from New Mexico into Arizona or from Arizona into California. But somewhere down in this part of the United States they have a territory called the "Great Southwest" and they include in that "Great Southwest" all of the great mines of this section of the country; they include all the great forests in this section of the country, they include all the great orchards, all the great irrigation projects, in fact they are going out, I guess, as far as they can and include everything of value in the western part of the continent. We have a gentleman here today who is well known to the people of Los Angeles, who is well known to the people of the state of California, and perhaps better acquainted in the "Great Southwest" than any other man in his profession, who is going to extend to you a welcome from this great southwestern part of the United States. I have great pleasure in introducing to you Honorable Frank G. Tyrrell of Los Angeles.

HON. FRANK G. TYRRELL: Mr. Chairman, Delegates, Ladies and Gentlemen: I assure you the pleasure is mine today to lift up my voice in the chorus of welcome. I trust, however, that this will not be so extensive and so continuous a performance as to monopolize your valuable time. We realize always that you gentlemen represent great in-

terests, that you have some serious problems confronting you, that you are here for business, and yet just a word or two perhaps added to what has already been so cordially said may discharge a duty that is incumbent upon somebody to speak for this indefinite territory, this territory with uncertain boundaries characterized the "Great Southwest." If you will put your thumb on the city of Los Angeles, on a map of these United States, and, with your fingers outspread like a compass, describe a semi-circle from the shore line of the Pacific and back again to the Pacific, you will include California, Nevada, Arizona, at least these three, a sort of Golden triangle, and then a large portion of the Republic of Mexico. Los Angeles, as a matter of course, is the center, the hub, from which you describe this circle, and Los Angeles is the queen city, the plethoric capital of this great southwest.

In this section of the country you find much to interest you. You have all more than a passing familiarity with mines of prodigious productivity. You know something of the Amazon of yellow wealth that is being poured out from these great quartz lodes. You have heard again and again of the fountains, the geysers, of fuel petroleum that are shooting up from the bosom of the earth in response to the magic touch of human industry. You know something of these, but you have not heard, perhaps, so much of the marvelous agricultural and horticultural resources of this section in which are included these nestling valleys of California, and, likewise, the valley of the American Nile, the great irrigated center of the southwest. There you will find the blossoming fields of cotton; you will find a plethora of agricultural resources which has astonished even those who are familiar with the rare productivity of this silt-like soil, and every irrigation is itself a fine sight and leaves a fresh deposit of silt, furnishing in this deposit all of the elements necessary for plant life and growth, and the song of husbandry is heard in this section of the land, which, only a little while ago was a great American desert. The hardihood, the enterprise, the prophetic foresight, the resourcefulness, the ingenuity, the power of personal initiative, the Titanic energy and the courage of the American people have driven that desert line farther and farther to the west until it has at last been absolutely forced into the Pacific ocean, and there is no more great American desert. The soil is rich beyond the dreams of avarice, not only in metal or mineral wealth, but in all the chemicals that are known to science, and we have only just scratched the surface of this marvelous wealth. Over the line we have the empire of the Montezumas; just a little farther south, cutting a gash through the Isthmus, the Panama canal will soon wed the two seas; the weird genius of the Atlantic, through the agency of the merchantmen of all nations, will have its hand placed in the hand of the still more weird and necromantic genius of the Pacific, and the Orient and the Occident will be united in the holy bonds of commercial wedlock and the great southwest will publish the banns. (Applause.)

When we gaze upon a resourceful section of our country like this and realize the outcome of this marvelous progress, we realize the truth of those resonant words:

The elements of empire here
Are plastic, yet and warm;
The chaos of a mighty world
Is rounding into form.

And your hands and your genius and your deft touch and your artistic skill and resourcefulness as past masters in commerce and productive enterprise are going to give it shape and character and substance, even as you have already laid broad and deep its foundation.

Now, as a matter of fact, many of you, and we trust multitudes more, will be here from different sections of our country, perhaps even from far Europe, from the great money centers of the Old World. Industry and capital, plus power and value of personality are all that any section of

the country needs, and if you act and re-act upon an environment which God and nature have so superbly blessed, I submit that your wildest dreams will be more than fulfilled in the ultimate issue. When we see all of these forces working together, converging and centering here, even with as enthusiastic, capable, loyal, honest and fearless a chief executive as Mayor Alexander, we will be surprised at the growth of Los Angeles. A million? Yes, and then some! You can multiply it. And I want to say to you that the scales of influence are even now trembling in the balance, and the West will some day no longer be the tail of the dog—or, if you will have it so, it will be under such conditions that the tail wags the dog.

Now, if you come here from other sections of the country you have already gained much. I do not know but you are all like some of the rest of us—almost lulled into a delightful state of somnolence every time you board a Pullman car and listen to the whirl of its wheels upon the shining rails. You are, in the midst of our material resources, carried on and on and on with a sense of ecstasy like, I imagine, the man in the aeroplane; but you have no fear of alighting until at last you reach the end of your journey. And you have profited immensely already. If Emerson was right when he said, "I am a part of all that I have met," just think what tremendous composites our travelers already are, you and your ladies. Now, you are here somewhat in the midst of different scenes, brushing against different people, and yet from every section of our common country we have selected the choicest and the finest personalities in order to build here upon the shores of the Pacific a city that has selected its material, its population, its elements of civic loyalty, culled, sifted, selected from the choicest communities of the middle West and the farther East. We will be glad to add to the number from the ranks of those who are already here, and I know you will be greatly profited. A man never leaves home without learning something, without getting a new idea which he can work into his own scheme. This is illustrated in the story of a colored preacher who went to New York and there visited a cathedral and was greatly awed and impressed by the ceremonious ritual, and he went home determined that he would reproduce the ceremony in his own church. He organized a lot of pickaninies and had their mammies busy making gowns for them, and finally, on a certain Sunday, to the great surprise of his congregation, he came up the aisle singing the processional and followed by his choir boys. When he had proceeded about half way up the aisle he noticed that the boy immediately behind him had evidently forgotten something. In order not to attract attention to the fact, without varying his tone he said to the boy, chanting, "What have you done with the incense pot?" The boy, in like manner, immediately rejoined, "I left it in the aisle; it was too damned hot!" (Laughter.)

Now, whether it is a pot of incense which carries to you some memory of the pungent odor which floats from our citrus groves and our gardens, whether it be a fragment of our blue sky or only a wierd, dream like memory of the fairest land under the dome of heaven, you will profit somewhat, I doubt not, by your journey here, and you will go home, I trust, immensely enriched and rewarded for your visit. And remember in the midst of all this Niagara of talk that you are suffering so patiently today a quatrain that I read some time ago about the wisest bird in the whole realm of the animals that float on feathery wings:

"A wise old owl sat on an oak;
The more he saw the less he spoke;
The less he spoke the more he heard.
Why can't we all be like that bird?"

We would learn something, would we not, if we would not all talk so much?

And yet that is to be paired with another rhyme:

"A man who whispers down a well
About the goods he has to sell
Won't reap the gleaming golden dollars
Like him who climbs a tree and hollers."

Some of us are here to holler, are we not, and to advertise our wealth? Gentlemen of the American Mining Congress, delegates and visitors to this great country, this magnificent domain which has in it the raw materials for the fashioning of a magnificent empire in and of itself, in which you see in active operation in their daily toil the bread winners—professional men, commercial men, bankers, financiers and promoters, and the hardened, horny-handed prospectors blazing their way through the hell of a desert that yet remains, pumping from the plethoric stores of Mother Nature the wealth that gushes forth like water from the rock in the wilderness smitten by the rod of Moses, the emancipator of a mighty nation—you are welcome here because of this superb spectacle, welcome because of these tremendous forces of progress, welcome because we are building here, in pyramidal splendor, the pillars and columns and walls and dome of a new section of this great nation of ours; and over it all are the protecting folds of the fairest flag the sun has ever shone upon; for we are Americans and we stand for the industry and commerce and material development of every part of America. Given these elements and these conditions and these material resources, are there any bounds that can be placed upon our development and enrichment? God forbid that any government, paternalistic or otherwise, should, out of a mistaken policy of conservation, cause this great army of industry to fall halt on palsied feet and check this magnificent development, even in its beginnings. (Applause.)

PRESIDENT BUCKLEY: I am sure that the members and delegates to this meeting of the American Mining Congress regret exceedingly that our secretary, Mr. James F. Callbreath, is ill and unable to attend these sessions. He is confined in his apartments in the city. I wish to announce that, temporarily, or until such time as Mr. Callbreath is able to attend the sessions, Mr. Sidney Norman will act as secretary pro tem of this meeting.

I wish also to make an announcement concerning the resolutions committee. I think every one appreciates the fact that the most important work, perhaps, transacted by this Congress is done by the resolutions committee. Each state represented at this session is entitled to one member on the resolution committee. The delegates from the various states should call meetings and select their representatives on that committee, and that should be done immediately, and the resolutions committee should be organized not later than tomorrow noon.

I wish also to announce that the resolutions committee will hold daily sessions; in fact those who serve on the resolutions committee spend most of their time in committee meetings and anyone who is interested in any resolution which may be presented to this Congress for its consideration will have an opportunity to be heard upon that resolution before the committee. It has been the practice of this organization to give everyone an opportunity to appear before that committee and discuss the resolutions that are before them. Announcement of the time when these resolutions are to be considered will be made in the foyer of the theater. A bulletin board will be prepared for that purpose.

The credentials committee consists of Mr. J. W. Malcomson, Mr. H. C. Freeman and Mr. C. B. McCollum, and the committee will be found in the lobby of the Alexandria hotel.

The secretary has some announcements to make at this time.

SECRETARY NORMAN: Mr. Chairman, Ladies and Gentlemen: I am sure you will all regret with me the reason why it has become

necessary for me to officiate in this capacity, and will join me in the hope that Mr. Callbreath may speedily recover from his illness. This is my first effort to handle the secretarial duties of a congress, but I think, with your indulgence, I will be able to get through.

The official program has been prepared and will be placed in the printer's hands this morning for distribution to this convention.

PRESIDENT BUCKLEY: I wish to announce that resolutions will be received at any time or at any of the sessions of the Congress. Is there any further business to come before this meeting?

MR. GEORGE W. PARSONS: Mr. President, I desire to move a vote of sympathy for Mr. Callbreath, who is ill and cannot be with us at this time.

Motion seconded and carried by unanimous rising vote.

PRESIDENT BUCKLEY: I will request the secretary to convey this expression of regret to Mr. Callbreath.

MR. GEORGE W. E. DORSEY: Mr. President, I move that we take a recess until two o'clock this afternoon.

Motion seconded and carried.

A recess was thereupon taken until two o'clock P. M.

MONDAY, SEPTEMBER 26, 1910.

Afternoon Session

PRESIDENT BUCKLEY: The Congress will please be in order.

MR. THOMAS E. GIBBON: Mr. President, Ladies and Gentlemen: I listened with a great deal of pleasure this morning to the eloquent words that have been spoken about the Great Southwest, and I am glad to be able to say that I am from the peer of all mining states—Nevada. Do you know, Mr. President, that Nevada has electrified the world of finance on many occasions? First, at Virginia City, by the Comstock, then at Tonopah, by the Mizpah, then at Goldfield by the Consolidated, then at Ely, and now, Mr. President, I desire to introduce to the mining people of this country a new section in lead and zinc that is destined to electrify the world again. The miners of that section have delegated me to present to you this piece of ore and this pick and to say to you that we have a district there where, for the amount of work done, we can show more ore in sight than in any other mining camp in the United States. Of course there is a great diversity of opinion among mining men, but we have never had an adverse judgment upon our district. They have asked me to present to you this piece of metal, and this pick that you may use as a gavel in calling to order the sessions of this conference, and we say that in these days of conservation we hope its ring will be clear, and that the expressions of this Congress upon the momentous problems before you will be equally clear, and we trust that this token may serve as a memento of your great work in the interest of the mining industry and of the general welfare.

I have great pleasure in presenting to you, Mr. President, this ore specimen and gavel.

PRESIDENT BUCKLEY: Last fall I had the pleasure of visiting the lead and zinc district from which our friend Mr. Gibbon comes. I think it is especially appropriate that this district should present to the American Mining Congress this memento on this occasion, and it is especially appropriate that it should be a piece of zinc ore, and that the gavel that the presiding officer is expected to wield at this session should be a gavel of zinc. It has been my good fortune during most of my life to live in a region which has heretofore at least been consid-

ered pre-eminently the zinc region of the United States. I hope for my good friends in Nevada that some day they may be able to stand before the American people and say that Nevada instead of Missouri ranks first in the zinc production of the United States.

This country needs all the zinc that Missouri can produce, it needs all the lead that Missouri can produce, and it will not be many years before the people engaged in the lead and zinc industries of the United States will turn to Nevada and to the other states of the West to secure the supply so necessary for the industrial pursuits of this country. I believe that that time is not far distant, and I agree with my good friend Mr. Gibbon that some day Nevada will take her rank as one of the greatest zinc producing states of the union. Mr. Gibbon, I trust you will do me the honor to convey to your people at Good Springs the thanks of this organization and my thanks for their courtesy in contributing these tokens of their good wishes for the success of this, the Thirteenth Annual Session of the American Mining Congress.

MR. GIBBON: It will give me pleasure to do so, Mr. President.

PRESIDENT BUCKLEY: A response to the addresses of welcome will be by Col. L. W. Powell of Arizona. You are all acquainted with Col. Powell, and I take pleasure in introducing the Colonel to this audience.

COL. L. W. POWELL, of Arizona: Mr. President, Ladies and Gentlemen: While I have been a member of the American Mining Congress for a good many years and, I believe, had the pleasure of being appointed as a delegate to its first session by the governor of Minnesota, this is the first opportunity I have ever had to attend one of its meetings, and it is with great pleasure, I assure you. While I have not attended its meetings, I have watched its course with a great deal of interest, and the result of my observation makes me feel that the great influence which it has exerted has been due to its efforts along educational lines. The Congress has been educating the American people to the importance and the needs of our great mining industry, and great good has resulted from this work. When I heard the announcement this morning that I was to address you on the subject of Arizona, it was with a keen sense of pleasure, I assure you; but after I thought it over I felt that perhaps I had been assigned the most onerous duty assigned to anyone here this afternoon, for I believe that it will prove that Arizona, which is yet a territory, but soon to be added to the great sisterhood of States (applause), will prove to be more resourceful in mineral wealth than any of them, and I feel, my friends, that you will all be interested in hearing about Arizona and its mineral resources, and I felt that the duty was one that I could not perform as well as it should be performed, and for that reason I have arranged with the committee to delegate my privilege of addressing you to a very distinguished citizen from Arizona, and I take pleasure in introducing to you General A. J. Sampson of Phoenix, and assure you that you will be pleased to listen to him.

I thank you.

GENERAL A. J. SAMPSON, of Arizona: Mr. President, Ladies and Gentlemen: I realize that there are something like a dozen on this list to respond to the addresses of welcome that have been made, and I know that they are all anxious for me to make a very short speech—for they want to get up here and say something of their respective localities. In about seven or eight minutes I will tell you something of Arizona that would take seven or eight hours if I were to do justice to the subject.

Mr. President, during the last twelve or fifteen years it has been my privilege to view the United States from a foreign standpoint, during which time I have carried the stars and stripes to greet the flags of twenty-four other nations of the world, ever proud to be able to say

I am an American citizen, as I am proud this afternoon to be able to say to you that I am an Arizonan.

Before leaving for the home land, General Olifero, one of the wisest of all South American presidents, said to me, "Mr. Minister, I congratulate you upon the marvelous growth and prosperity of that great republic of the north"—as he was always wont to designate our nation—"greater and more marvelous than has ever come to any nation on the face of the earth." Such, no doubt, was the sentiment of the rulers of all the nations of the world. We have taken our place in the front rank of the nations of the world. In agriculture, in commerce, in per capita wealth, in railroads and in mining we have come to the top of all the nations (applause), and our army and navy are now the admired of all who stand behind the guns of any navy or any army in the world and never will any of them place a chip on their shoulders and dare us to knock it off. At the close of the Spanish-American war I saw an incident showing the increased glory that had come to the United States in one of our South American Spanish papers. It stated that in Valparaiso, Chile, five men of different nationalities agreed at a champagne dinner that the one who could give the best toast to his country at the then present time should not have to pay for any part of that dinner. They were a Russian, a Turk, a Frenchman, an American and an Englishman, and here are the toasts they gave:

The Russian: "Here's to the stars and bars of Russia that have never been torn down."

The Turk: "Here's to the moon of Turkey that has never had its wings clipped."

The Frenchman: "Here's to the cock of France that has never had its feathers plucked out."

The American: "Here's to the stars and stripes that have never been trailed in defeat."

The Englishman: "Here's to the ranting, roaring lion of Great Britain that tore down the stars and bars of Russia, that clipped the moons of Turkey, that plucked the feathers out of the cock of France, but, during recent events, the stars and stripes have scared hell out of the ranting, roaring lion of Great Britain."

It is needless to say that the Englishman did not have to pay for any part of the champagne dinner.

Gentlemen, I have referred to these things to emphasize this fact, that in all the recent growth and glory and development of our nation that fractional part of it which I have the honor to represent has grown and kept in line with the whole, in the advances that have been made. We have known our resources, but they have been unknown to the world. Recent events have made them known. The attempt to force Arizona and New Mexico into unwilling wedlock made known to the East our resources as they never had imagined them to exist before, and has already brought many thousands and will bring other thousands from the East and millions of capital to develop the resources of our territory. During my residence in the far off Southland I received many letters from American citizens asking as to the mining resources of that country and the cattle industry and other industries. I always answered, but closing with the statement that I had no doubt that there were better advantages in the United States—and you will pardon me, gentlemen, if I added "especially in Arizona," than in any country in the world, with the additional advantage of living in the home land, not subject to foreign caprice and injustice.

To realize what Arizona is today and to speculate what she is to be a hundred years hence it is necessary that we look at her as when she was in the grasp of the savage Apache, when to go from the north to the south or from the east to the west of Arizona was fraught with greater hardship and danger than a trip around the world, when there were no fields of waving grain, no men with iron muscles and strong

wills determined to take from the fissures in the mountains the rich ore, when there were no sweet-scented orange blossoms as there are today, no orchards, no orange groves, no irrigating canals to bring riches and production to millions of acres of as rich land as can be found anywhere.

Ladies and Gentlemen, after looking at those lands in the Nile valley that are selling at \$2,000 an acre I want to say to you that we have the Salt River valley land for \$200 an acre worth more than \$2,000 an acre land in the Nile valley. Then had come the time to lay deep the foundations of the future of Arizona. That future was largely judged by the character of the people that came and located within her borders. From far towards the rising sun, in the home land, from the busy marts of trade, they came; from the Great Lakes of the North, plowed by the Leviathans of commerce, from the magnolia shades of the South where the brave cavaliers said: "I am off for Arizona," and loving wives said: "God speed you;" from the hip, hip, hurrah! of the Great West; from our neighbor Canada on the north, and our sister Republic of Mexico on the south; from the boys who wore the blue from 1861 to 1865 and the boys who wore the gray during the same period—from all these and more they came for the development of that great empire of Arizona. (Applause.)

In the early days they traversed the desert waste. Up the canons and ravines of the mountains where hidden dangers lurked, over the mountain passes they went, all on a noble mission bent, that of subduing the waste places, that of building homes, that of establishing a patriotic and intelligent citizenship that the savage Apache could not equal and that hunger and cold could not thwart in their onward progress.

But, gentlemen, after we have talked of all these things, the one thing that we are met here today to consider, to protect, to foster, is of the first and greatest importance to Arizona—the mining industry. We have the mines; all we want is that we shall be left alone, as we are now, permitted to prospect and develop these mines, so that our soon-to-be (we hope) state may be one of the first in the Union. (Applause.)

Ladies and gentlemen, I might tell you of our new industry, cotton, said by a Louisiana expert to be equal to any in Louisiana or Texas; our dates, the first in the market of any in the United States, our five thousand ostriches, the largest number in any section outside of South Africa; I might tell you of all our orchard groves, of our cattle and sheep industry, but I have not time, only by trespassing upon the time of others, and that I will not do.

I look at that flag, gentlemen, and I see no star there representing Arizona. During all the years gone by we have been governed from Washington, the same as the Philippines. You, Mr. President, from Missouri, can look up to that flag and count where No. 11 comes in, in 1821, and say, "That is Missouri." You gentlemen of California, can look up to that flag and see No. 18 and see written across it, "California, 1849;" you gentlemen of Nevada can look at that flag and see No. 21, admitted in 1864; but Arizona, none, and yet in the last two years Arizona has produced more mineral, in value, than any state in the Union. (Applause.) But no star. Thank God the time is near at hand when there will be one placed there, when we come into statehood at an early day, and then we will take a new interest in that flag. We love it as it is, but when we can see another star put there and read, in our imagination, across its face, the name "Arizona," then we will be ready to sing with you!

"Forever float that standard sheet.

Where breathes the foe but falls before us,
With freedom's soil beneath our feet,
And freedom's banner streaming o'er us?"

I thank you. (Applause.)

PRESIDENT BUCKLEY: We will now have the pleasure of listening to a response by E. H. Benjamin of San Francisco, representing California.

MR. E. H. BENJAMIN: Mr. President and Members of the American Mining Congress, Ladies and Gentlemen: I know of no reason why I was selected to respond for California, unless it was that California is such a great big state. (Applause.) Before I heard my name read this morning I had no idea that I was to be expected to say anything, but I can assure you, my friends, that it affords me the very greatest of pleasure, and I consider it a very great honor, to be called upon to respond for my native state, California.

It is due to the miners of California in a great measure, that the mining industry has reached its present state of perfection and development. The names of the trained engineers of California have become almost a password through the entire mining world wherever modern metallurgical processes are known. It is due in a great measure to the energy, to the ability, and to the sound common sense and to the practical experience of the California mining engineer and the California miner that South Africa can point with pride to her marvelous production of gold. The solution of the problem of treating the ores of South Africa is due to a California engineer. The success of the cyanide process in South Africa was developed by Mr. Hennen Jennings, foremost of all mining engineers, and he was ably assisted by Mr. Charles Butters, a graduate of the University of California.

Many of the eastern papers and magazines have published many articles depicting the California miner as an outlaw that had to travel with a gun, whose presence on the mountain trail was to be dreaded; but, my friends, the people who came to California and settled California in the early days were not men of that class. The people who founded this state and who blazed from nature the trails over which the immigrants passed in after years, who built their habitations from the rocks and trees as they found them, were not a band of outlaws, they were men and women who represented the strongest and sturdiest and the best classes of humanity to be found in the world. They were the people who laid the foundation for this magnificent state for which I have been called upon, in my weak way, to respond. This beautiful country of southern California, where we are so hospitably entertained and received, and which all California feels justly proud of, was, for a number of years, looked upon as simply a resting place for the people who were in search of lost health; but I assume today that there is not a man here or any person who can look upon the magnificent structures built in this city and see the great progress that has been made here that cannot say, "we take our hats off to Los Angeles, we are proud that Los Angeles is a part of California." A great many of the eastern people seem to think that Los Angeles is the only portion of California, and when you speak of California to them they are reminded of Los Angeles, because they have heard so much about it. (Applause.)

Now, I want to say, my friends, that if the same spirit of progress, the same spirit of goodfellowship existed in the northern part of the state that has been manifested by you gentlemen in the southern part of the state there would not be a remote hamlet in California that would not be as well advertised as Los Angeles, because they are all just as beautiful, one as the other.

I was amused this morning in the address of welcome by your Mayor when he presented the golden key to our President. I presume that key has been presented to a great many presidents and presiding officers at former functions of this kind, and I presume it will be presented again many times. This week it happens to come to the miners, and they are supposed to unlock the treasure vaults of the city, and store therein a lot of new money, dug from the bosom of dear old mother earth, and next week, it is safe to assume that this same key

will be presented to the Bankers, who will assemble here, and they will proceed to unlock the treasury and get the miners' money and take it away with them. (Laughter and applause.)

I want to call your attention to just one little thing to show the versatility of the California engineer. Governor Anderson in his remarks this morning referred to the California gold dredges, those huge machines which are producing millions annually, which represent an investment of over nine millions of dollars. That industry was born only a few years ago; it has grown to tremendous proportions; and like the hydraulic industry, in its early infancy it was opposed by a great many people who said, as they did in the hydraulic industry, that it was destroying the natural resources and the natural beauty of the country. They claimed that the dredges were destroying the farming and agricultural lands, and even went so far as to introduce a bill in the state legislature to prohibit any further gold dredging. Those of you who have visited the gold dredging industry and the fields where gold dredging is carried on, probably the first thing that struck you was the large pile of cobblestones left in the wake of the dredger. Do you know, my friends, those cobblestones, which represent the concentration of nature as the hardest and the toughest and the strongest character of rock known—those cobblestones are being crushed today, and the product is being used to make the finest boulevards in the world all over the state of California, and in as short a time as possible, four or five years, or in a shorter time than it has taken to produce those great piles of rock, there will be nothing left in their place but the most fertile soil plowed thirty-five feet deep, upon which are today growing oranges and grapes in the Sacramento valley and in and around Oroville. The rocks are all being removed. Necessity was the mother of invention in that case. The dredging engineer saw that if he could not do away with the popular prejudice, with the idea that his industry was spoiling the land for future generations, there was liable to be a bill sneaked through the state legislature to put a ban on gold dredging. He got busy just the same as every other California engineer gets busy when put up against a hard proposition, and he solved the problem, and if you who visited the dredging field two years ago will go to Folsom you will see a crushing plant that is turning out many carloads of the finest road material that ever was put on a road in California. There are twelve more crushing plants in course of construction, and probably in a year or two years more there will be just as many crushers eating up the boulders as there are dredges digging them out from below the surface.

I have simply one word more to say, and that is a similar message to that which I gave to the members of this body a year ago in Goldfield. You gentlemen represent the highest type of mining development—the trained, experienced engineer, the practical, successful business man and operator. You will be called upon during our deliberations here to solve many a knotty problem. There probably will be matters coming up for discussion, there may be some strife and some struggle for individual views, but, gentlemen, the entire mining world is looking forward towards the fruit of your efforts for guidance and for counsel, and I want to say this to you: Above all things, in your deliberations be fair; let the results be only for the greatest good to the greatest number, for the masses, and not the classes. Many matters affecting the welfare, and the life and the health of the miner, and toiler, and the unsuccessful individual who has made an honest effort and failed, or who has been oppressed by unwise, and vicious departmental rulings, will probably come before us, and we will be asked to suggest or provide relief for a great many matters, that are going to require careful consideration. Let us treat all fairly and squarely and honestly and remember that honest endeavor injures no man.

I am reminded of a little verse that I heard years ago, and it always seemed to me as being expressive of the attitude we should

endeavor to assume toward our fellow man, who had tried hard to help himself, and failed. It was something like this:

"I know that the world, the great big world
Will never a moment stop
To see which dog may be in the right,
But will shout for the dog on top.
But, for me, I never shall stop to ask
Which dog may be in the right,
For my heart will beat, when it beats at all,
For the under dog in the fight." (Applause.)

PRESIDENT BUCKLEY: We will now listen to a response from Illinois by Mr. David Ross of Springfield.

MR. ROSS: Mr. President, Delegates to the American Mining Congress, Ladies and Gentlemen: For the precious privilege of meeting the hospitable people of California, I feel under renewed obligations to the good Lord and the Southern Pacific railroad. Nevada is great, California is great, Arizona is great, Colorado is great, they are all great, and destined to become greater still; but they are only en route. Illinois has already arrived (applause). The great prairie state of Illinois, great in men and minerals, great in coal and corn, great in hogs and hominy, great in all the elements that make for strength, progress, power and prestige, and, in these latter days of degeneracy, regrettably great in some other things (applause), sends greeting to the American Mining Congress. Some at least of the people of the Pacific coast are familiar with the principles of a certain international game, but it took the courage, the cunning and, spare the word, the corruption of Illinois to originate the legislative jackpot. (Laughter and applause).

I like to hear the story of the greatness of the western states: It is a promise and a prophecy. I like to think of it in the optimistic way, because I am built upon hopeful principles. I like to think that you have barely tapped the marvelous resources of this mighty western world. But the revelations you have made in the way of development and discoveries is but the title page of the great book of international surprises you yet hold in store for all the world. Being an optimist, I am therefore inclined to the philosophy that we are in no danger of immediate want for anything. I, too, am a conservationist. I believe, as I think all men believe, in intelligent conservation. We believe the best use that the resources of the country can be put to for the benefit of mankind is to use them, to utilize them and to develop them and I say this in all respect, in all kindness and sympathy for some of our friends who seem to have contracted a nightmare regarding the resources of the nation.

I had a friend who supposed he had discovered the real religion, when the facts were known he had succeeded only in locating a bad case of dyspepsia. (Laughter.) A great deal depends upon the viewpoint. I have known people so pessimistic they could see nothing except the hole in the doughnut. Some of my friends complain about the great amount of good American soil that, by the law of erosion, was finding its way via the rivers into the seas. They can tell you, in a scientific way, how much of the earth we are losing by that method. Well, the process of erosion is not a modern one; we have had it ever since winds blew and rivers ran, and to it we are indebted for the creation of new land. More than three-fourths of the world, anyhow, is water. Everything and everybody seems to tend to water, except the people of Louisville, Kentucky and Peoria, Illinois. (Laughter.)

Only yesterday in certain arid regions of the western country the great problem was to get water in the dry places, and the question this morning is how to get it off. Even the swamp expert of Illinois, Dr. Elliott, suggests that the government attach a sponge to its sprinkling cart. Evidently some of our conservation friends have eaten something

that does not agree with them; they are having bad dreams. The dangers about which they preach are not real; they exist only in the disordered imagination "that bodies forth the forms of things unknown and gives to airy nothings a local habitation and a name." We are told about the exhaustion of resources that have only been tapped. What about coal? When we talk of coal, you men who produce the precious metals had better have a care. Commercial coal is worth a great deal more than all your gold and silver, all your zinc, lead and copper. We can get along as a people without silver and without gold and without copper and without zinc, but we cannot get along without coal, not at least until a satisfactory substitute is found. In referring to this I am but carrying out the suggestions of Mr. Tyrrell and Mr. Scott this morning and booming the resources of my locality. The surveyors tell me that we have about fifty-six thousand square miles of earth within the limits of Illinois, and that of those fifty-six thousand square miles nearly forty thousand are underlaid with coal, sixteen different workable seams varying from two to fifteen feet in thickness, then the statisticians got busy and their figures as to the total coal contents varied from 50 to 75 billion tons. Being experts it is not to be expected their conclusions would harmonize, but, making an allowance for a little discrepancy of several billion tons it is safe to estimate that the coal deposits within the geographical limits of my state contain two hundred billion tons, and we stand third in a quarter of a hundred coal producing states in this country.

I mention this simply to assure you that there is no immediate prospect or danger of exhausting our fuel supply. Two hundred billion tons; hid away in the earth ages ago by that old miser the sun, the originator, the father of conservation and who, unlike some of his modern descendants, did his work quietly and effectively. Father Hennepin in his voyage down the Illinois river two hundred and thirty years ago discovered coal at Ottawa and we have been mining it for commercial purposes since 1810, an even hundred years. During that period, as our statistics show, we have taken from this immense store house the paltry sum of seven hundred and thirty-three million tons. Llewellyn Smith, in a report last week to the British Board of Trade, makes the statement that from 1885 to and including 1909, a period of a quarter of a century, the United States has consumed five and one half billion tons of coal. On that basis of consumption, Illinois alone can supply the commercial and industrial demands of the United States for the next nine hundred and ninety-nine years (applause); and if our extreme conservationists are unduly alarmed let me assure them that there will be ample time at the end of that period to find out where the devil gets his fuel. (Laughter.)

Now, Mr. Chairman and gentlemen, let me repeat again the very very great pleasure I feel at meeting with the members of this congress, and particularly with the citizens of this great coast state. We have heard something about her development. We have heard a reference to the attitude of the Bureau of the Census at Washington that so great has been your increase in population since the time of the taking of the last census, an increase that is represented by more than 200 per cent, that the fellows in the census office at Washington are, as one of your men put it, dazed. They are inclined to think there is something the matter with the returns, and before announcing the facts of your growth from a population standpoint they are going to check up again and find out if someone somewhere has not made a mistake. It was my pleasure five years ago to visit the city of Los Angeles. You have doubled in population in that time. Under ordinary rules I believe mankind is permitted to double only about once in twenty-five years, you have done it in less than ten and ready to repeat (applause). You have an enterprising people here; and one of the best governments of any city in the United States (applause). You have a law here that provides when an unworthy man is elected to fill a public office the people, the sovereign people of your city, can recall that man. (Applause). Times, as one man said, are changing. Indeed they are—Maine has gone Democratic.

(Laughter). Now, I must not detain you longer. I am indeed glad to meet with you in these sessions.

PRESIDENT BUCKLEY: My friend David Ross of Illinois forgot to tell you that Missouri went Republican too. (Laughter and applause.) It is the order now to hear from Missouri. I would like to ask Mr. Malcolmsen to come to the platform and speak in behalf of the imperial state of Missouri.

MR. J. W. MALCOLMSON, of Missouri: Gentlemen, there is hardly a city or town in the state of Missouri where some citizen there does not hope that some time or other he may have an opportunity to come to Los Angeles, and it is a great pleasure for me to be here and to see this beautiful town.

Now, we have heard about the coal of Illinois and the very long time they have been mining it there, but I would like to give you a little matter of history about mines in Missouri. We are mining stay-at-home metals in Missouri—zinc and lead. Three years ago, I believe it was, our production commenced to increase enormously, and today and during the past three years Missouri has produced more lead and more zinc than any other state in the Union, and during the past year Missouri has produced more lead, outside of the United States, than any other country on earth, and it is not that the ore is so over abundant there, because the lead being mined in southeastern Missouri, south of the city of St. Louis, is perhaps the lowest grade lead ore being mined in the world, and the zinc of Joplin is very low grade.

When I tell people I am in the mining business I often notice a smile come over the faces of the people I am addressing, and I think every mining man should be prepared to magnify his business. The mining business is the most important business in the world. There are three ages in the history of civilization: one is the stone age, and it was during the stone age that stones were used by women to grind corn, the second age was the bronze age, when the Phoenicians developed the copper mines of that country. The third period of the world's history is the iron age, and it is with the mining of iron and the mining of other metals that have come with iron that the present progress of civilization is concerned. If it were not for the fact that we are mining coal and iron and copper and other metals we would today be in the same position as those ancient people who were using stones. Our wives today would be grinding corn on rocks, and it is altogether due today to the mining business that Los Angeles is where it is and that Missouri is where it is. Were there no mining business there would have been no bronze and no bronze age, there would have been no iron, and no iron age, and I think every man has a right to magnify his business and to feel that there is no business to be compared with it, for that reason.

I thank you. (Applause.)

PRESIDENT BUCKLEY: We had the pleasure last year of visiting that most delightful city of Nevada, Goldfield. There are other cities in Nevada besides Goldfield, and we are to be represented here today by a gentleman from another section of the state, who is to respond to the addresses of welcome on behalf of Nevada. I take pleasure in introducing Mr. James W. Abbott of Nevada.

JAMES W. ABBOTT, of Nevada: Members of the American Mining Congress, Ladies and Gentlemen: Do not think that Nevada has come here to boast. I do not know that any special advantage would come to the state by attempting to declare its preeminence in any particular line. The history of Nevada is known to many, particularly to mining men; but Nevada feels very thankful indeed for this occasion; it feels very thankful that the mining men of the United States have the opportunity to come to this coast and see for themselves what a mining metropolis it is possible to produce in the West. Los Angeles is the city that in the future at some time is going to become the great mining

metropolis of the West. It is going to occupy, to the West, the same relative position that New York occupies to the entire country. But it has been an up-hill job. The most marvelous lack of perception that I have ever known of in my life has been the lack of perception of the great newspapers of this city on the subject of mining in its relation to this town. Mining made the central cities of this continent. Mining made Denver; it made Spokane; it made Salt Lake City, and they had sufficient judgment and foresight to understand where their bread and butter came from and to do their best to stimulate their own possibilities. This city has seemed to me to be ashamed of the very greatest resource, in my judgment, which it has today. I did not come here to find fault with Los Angeles; I am proud of Los Angeles. I am proud of it as an American citizen; I am proud of it as our metropolis; and I feel that we have had our part in making Los Angeles what she is now, and we shall have a continuing and increasing part in helping to make of Los Angeles what she is going to be.

Nevada comes here in a spirit of thankfulness for this Mining Congress and its accomplishments. The state of Nevada understands that to the Mining Congress has been due the establishment of the National Bureau of Mines, the most practically important bureau that has been established at Washington in the last twenty-five years. (Applause.) Nevada is thankful that we have had a president with sufficient perception to understand and to accept the judgment of the mining men who asked him to appoint Dr. Holmes. (Applause.) And I want to say if he had selected Mr. Parker he would then have conferred a great credit upon the industry and upon all the friends of the industry. (Applause.)

Nevada feels that the Mining Congress has only begun its field of usefulness. Nevada feels that there are many questions of extreme importance for this industry which have got to be worked out. The subject of silver became somewhat obnoxious to the people of the United States because it was treated as a political subject; but I want to tell you, gentlemen, that the subject of silver is not a political subject; it is an industrial subject. By allowing silver to depreciate in value relatively to gold we are building up on the shores of that distant land across the Pacific an industrial competition that is going to take away the bread and butter from our own working people unless we rise to a comprehension of the situation and take steps to avert it. That is a subject which interests us in Nevada. Nevada has come to be known and recognized throughout the United States as the silver country. Now, it is not true that silver is our main product today; Nevada is one of those wonderfully adaptable states which can turn with the tide, and when silver became discredited Nevada had the good sense and the ability to turn to gold, and Nevada today has the greatest producing gold mine this world has ever seen. But Nevada has silver everywhere. Nevada wants to utilize that silver; she wants to stimulate those industries into which silver enters as an important factor, and she wants to do that because that is a natural and proper way to develop her resources; but you gentlemen who live in Illinois are just exactly as much interested in the question of silver as you are in the question of coal. You have in Illinois some of the greatest factories which produce the products of iron and steel, some of the greatest in the world, some of the most important, and those factories are very essential to your prosperity. If you are going to let the Chinese and the Japanese and the Hindus and all those people that enter into what is known as the "yellow peril"—if you are going to let them come and capture your markets right in your own homes then you will understand what the fallacy has been of calling silver a political question. I do not feel that politics should fairly come into the deliberations of a body of this kind, but politics and business are pretty closely allied sometimes. I have always felt that when General Hancock, when he was running for president of the United States on the Democratic ticket, said that the tariff was largely a local issue he expressed a truism. Politics really means the best interests of the people who have occasion to cast a vote. You do not cast a vote because you want to advance some

abstract principle, and you do not cast a vote because you want to be relatively strong, but in your own heart you cast it because you think it is for your own best private interests.

I want to say one word about Mr. Pinchot. I have just left Mr. Pinchot. I had the good fortune to be invited to a luncheon where he made the principal address today; and he will make an address before you tonight. Many of you disagree with Mr. Pinchot. So far as I know, I am diametrically opposed to some things Mr. Pinchot advocates, but I want to tell you that, of my own knowledge, there is not in the United States today a more sincere man than Gifford Pinchot. I think, taking him all in all, he is the most lovable character in the public eye today and perhaps the most lovable character that has ever been in the public eye in this country within my recollection. I have seen Mr. Pinchot take a convention that was against him almost to a man, where there were angry feelings, angry thoughts, angry words, and I have seen him smooth out that convention as one would smooth out the troubled waves of the sea in a storm by pouring on oil. He did it calmly, by explaining to them why he believed as he did, and I tell you my feeling toward Mr. Pinchot is this—that no matter how much I might differ from him upon any subject of importance, I know of nobody else to whom I would go and say “I want the facts, and I shall believe what you tell me to be the facts.” Now, I am not at all sure that Mr. Pinchot is not coming here to tell us some facts that we do not yet know. He is a student. Mr. Pinchot is devoting his life to his fellow citizens. He has no family, he has no personal pleasure to gratify, he lives plainly, he works hard all of the time, and he thinks every minute for his fellow citizens, for the common, plain man, who finds the problems of life hard, and Mr. Pinchot's one thought is to make those problems easier.

Gentlemen, I thank you. (Applause.)

PRESIDENT BUCKLEY: I now take pleasure in introducing to you Dr. Harvey M. Shields of Dawson, New Mexico, who will respond in behalf of New Mexico.

MR. SHIELDS: I think this is the first time the two words “New” and “Mexico” have been joined together in a sentence addressed to this assembly. I thought this morning that New Mexico had been forgotten. Some one spoke of putting the thumb upon Los Angeles and describing a semi-circle as far as the hand would reach, and New Mexico was not included. We in New Mexico put the thumb upon Albuquerque and expand the fingers as far as we can, and then, sad to say, we think that what is beyond the compass is what the Creator happened to have left over. (Laughter.)

I had the pleasure a few years ago of being associated in Washington city with one of those men who have already spoken this afternoon, General Sampson, in the anti-joint statehood contest when Arizona and New Mexico had reached a firm conclusion that they did not wish to be joined in the bonds of matrimony, and as I listened to General Sampson's words today I appreciated the force of them and realized the greatness of Arizona as only one could who has himself spent nine years of his life there among mining men, employer and employe. When I listened to General Sampson's words and realized anew the greatness of Arizona, I remembered that Arizona was at one time a part of Dona Ana county, New Mexico, (laughter), which is a historic fact, and these two prospective states—for, thank high heaven, there is another hope of still another star on that same flag,—New Mexico and Arizona are so great a body of territory that a line drawn from Yuma, in the southwestern corner of Arizona, to the northeastern corner of New Mexico would be as long as the distance between the Mississippi river and Cape Cod, lacking two hundred miles. And these two territories embrace not merely territory, they do not encompass mere space, but encompass peoples and properties and climates and opportunities and possibilities that are beyond any one's dream who had not spent some time at least within their boundaries. Arizona has but recently occupied first place in copper, and

so great are the resources of these territories that in one instance, the copper fields of Arizona are linked with coal and coking plants in New Mexico by a span of railroad a thousand miles long, the copper and the coal and the railroad all owned by one and the same great company; and in addition to this company operating in these two territories there are other companies, represented by Colonel Powell, who has spoken to us today, and by other men of capacity and capital among you.

It happened providentially, two and a half years ago, that I was led across from Arizona, where I had spent several years among mining men in Bisbee, to Dawson, New Mexico, the great coal region. I can not understand it. How is it possible there should be so much coal in this country. Why, I had begun to think that all the coal was in Dawson, and I learn this afternoon there is a little bit in Illinois. I had occasion to remark at a banquet given in honor of Governor Mills in the city of Raton a few months ago that the commissioners of Colfax, New Mexico, of whom I have the honor to be one, have more affairs in their care and keeping than some entire legislatures of eastern states, and it is true. Colfax county itself is a state, and there are twenty-five other counties in New Mexico. You who are here so close to the sea, you who look upon the setting sun, you who know the Golden West must not forget that between you and the Atlantic seaboard there lie enormous interests still, and if Colorado and Northern California and Arizona are to contribute to the greatness of Los Angeles, which some day is to be the Queen City of the southwest, of the United States, of the world (applause), I beg of you not to forget that New Mexico would like to be ranked side by side with Northern California and with Colorado and Arizona as one who shall serve this great city in time to come. (Applause.) So do not forget us. Do not forget that land that has a combination of all the good qualities of an Anglo-Saxon with a Latin civilization. I look often at the Mexican at his work and think of him as having some of the bluest blood that ever flowed through tissue of arm and brain. I think of him as having in his veins the blood of the old Moorish conquerors; I think of him as having in his veins the blood of the old Spanish Dons; I think of him as having in his veins the blood of the old Toltec and Aztec civilization that preceded with its glories, the glories we are seeking to enhance today. I think of the fact that the Latin civilization of New Mexico now coalesces with the Anglo Saxon civilization that has come from the north and the east and the south and the farther west. I think of the fact that we are a composite people; I think of the Indians, in twenty pueblos there, who have as pure a form of democracy in a republican government as can be found anywhere in history—an argument for your and my confidence as to our Republic in its greatness, that it will be permanent. For through years and years untold the Pueblo Indians of New Mexico, though under the influence of one state and another, have maintained their own autonomy as small republics, with their governor and lieutenant governor, and with the several parts of the pueblo represented in a common council. I think of the contribution that is to be made to the folk lore of America by the pueblo Indians; I think of the Montezumas who have been there; I think of that tradition of the famous Jemez pueblo, where, at every succeeding sunrise, up an eastern hill an Indian sentinel goes to look for the return of his ancient king, who three centuries ago was thrown by the Spaniards from a cliff, four miles to the north. The long expectation is that he shall come again on the back of an eagle some day at morning light. So the pueblo Indian looks forward with hope to the realization of some golden dream that has lain in the heart of his ancestors. But we have more there than the Mexican people, more there than the Pueblo Indian; we have there the Anglo-Saxon race in full control. True enough, here and there in the smaller towns and mining camps, the American ideal is in embryo, but developing more and more, in cities like Raton, the gateway to the territory; like Las Vegas, like Albuquerque, like Dawson if you please, where almost every nationality upon the face of the earth is represented among its five thousand people—a cosmopolitan population indeed; like Silver City, Deming, Roswell, Alamogordo, Tucumcari, Las Cruces,

Clovis, Vaughn, Albuquerque, Santa Fe,—that place where the faith of the Triune has been so long maintained. Into New Mexico we have brought to bear upon all the problems that are to be solved, upon all of the resources that are to be developed, our Anglo-Saxon civilization with its institutions, its courts, its schools, its churches, confronted with a future. The great coal fields are there; there are copper properties there; there are lead mines there; and zinc mines and silver mines and gold mines, with turquoise; and every day from one town in New Mexico two large trains of iron ore go out. There are forests and rivers and valleys and plains and a half million souls. Look well to your laurels, other parts and other people, for New Mexico is, and is to be heard from.

I thank you. (Applause.)

PRESIDENT BUCKLEY: New York, the "Empire State," will be responded to by Dr. F. J. H. Merrill.

MR. MERRILL, of New York: Mr. President and Delegates to the American Mining Congress: It is with deep appreciation that I respond for New York, because New York has not generally been regarded as a mining state. While we have mines of iron and mines of salt, our mineral resources lie chiefly in the materials of construction—in building stones, in clay for brick and pottery, in lime and cement, in petroleum and in natural gas; and while California was first to offer vast treasures of precious metal to the miner and thus attracted across the continent the hardy Argonauts of '49 in their quest of the golden fleece and in the development of its territory, it has turned to the exploitation of other minerals which are all needed in its commerce and which have meant so much to the Empire State. The golden state today is, in turn, producing building stone, brick and pottery, salt and borax, and that limitless flood of liquid fluid which has replaced coal and surpassed in value all other mineral products of the state. Where many a western state is today New York stood two-thirds of a century ago. But now steam and electricity make the progress of development more rapid, and so New York greets you as a state whose sons are found wherever there are things worth doing, a state which many a western mining man calls home. The Empire State greets you cordially and fraternally and wishes the Congress success in all its affairs.

I thank you. (Applause.)

PRESIDENT BUCKLEY: If there is any one state in the Mississippi valley that impresses one as a region of blizzards and dust storms and muddy rivers it is the state of Nebraska; but I think the gentleman who is going to speak to you, responding on behalf of the state of Nebraska, can find lots of virtues to commend her to the people of the state of California. I am sure she has many of the very best men in this country. You can not produce good men without something good to produce them out of. Mr. George W. E. Dorsey of Nebraska will now address you.

MR. DORSEY, of Nebraska: Mr. President and gentlemen of the American Mining Congress: I do not want to talk to you today about the blizzards of Nebraska. I have been through them; but I was also through an earthquake in San Francisco a few years ago, and after hearing the gentleman this morning speak so eloquently on the Great Southwest, and my friend from Illinois telling of the hundreds of thousands of millions of tons of coal that underlie that great state, and the gentlemen from Arizona telling us that that is the greatest country on earth, I am reminded of something that an old gentleman said to me when I was passing through Arizona. I asked him, "Are you a resident of this territory?" He says, "I have been here for forty years." I says, "What do you think of it? How do you like it?" "Well," he says, "Stranger, let me tell you. There are more cow critters here and less milk, there are more rivers and less water, and you can look farther and see less, than in any country in God's world." (Laughter).

But Arizona is a great mineral state—I realize that. So is New Mexico, so is California, so is Nevada, so is Utah and so are other states, and I wish I could tell you that we have within the borders of Nebraska some of the coal that they have in Illinois and have some of the great gushers that you have out here at Midway, or had a mine like the Goldfield Consolidated, the greatest gold mine in the world, or a copper mine like the Utah copper mine at Bingham, Utah, or had some lead deposits like they have at Joplin or Coeur d'Alene. But we have none of those things in Nebraska. We are an agricultural state.

How could you get along in your mines if we did not send you from Nebraska the foodstuffs, if we did not send you our beef and our mutton—our Nebraska fed mutton—if we did not send you the hay and the oats that the patient mule consumes as he pulls the car along on the tramway? Those things we have in abundance, and we have as salubrious a climate as there is on the footstool, and all those things that go to make up a happy, contented people we have in Nebraska. No more prosperous people live on the face of the earth than we have in the state of Nebraska; no higher degree of intelligence can be found than we have in the state of Nebraska. For all those things we are proud of our state.

Now, gentlemen, I have been connected with the American Mining Congress since its organization when we first met at Denver, and I have spent my time and have gone to its sessions whenever possible, and I want to congratulate you here today upon the success we have attained so far, that is, the creation of the Bureau of Mines, the bill for which was signed since we last met in Goldfield; and upon the appointment of Dr. Holmes, who is one of the most efficient men. Much good will come to the mining industry of the country through his administration of that office I am sure.

Now, we have other problems to meet, and we will have debates over those problems, and I want you to try, in the course of those discussions, to keep down acrimonious debate, as some of us who have been prominent in past sessions of the Congress have endeavored to do. If another man thinks differently from your views do not call him a liar, for you are liable to get something in your face. (Laughter.) Smooth it out. Pour oil on the troubled waters. That is my advice to this Congress today, and I think we will meet all these problems and solve them. I have my ideas, and I am not saying that every man that does not agree with me is a fool or a liar or wrong; I want to give him credit for being as honest as I am. Let us meet those problems and discuss them and act in such way that good can come to the mining industry. This matter of conservation is right now before us, and we must meet it, and meet it fairly, and what this Congress does will have its weight with the Bureau of Mines and with the Congress of the United States.

Now, in closing I wish to thank the citizens of the state of California, of Los Angeles, and of the Sierra Madre Club for the magnificent reception they have given us here. The keys of the city were presented to our president, and I am sure the kind words that were spoken by the mayor came from his heart, and I am glad indeed to be with these people.

Now, Ladies and Gentlemen, I hope you will have a good time here, and I hope we will have a full attendance and a free and open discussion of all questions that come before this Congress.

I thank you. (Applause.)

PRESIDENT BUCKLEY: I do not know whether I have the right to make a remark of this character or not, but I think when we consider things judiciously and calmly and conservatively we must accept the general opinion that today the center of the mining industry is in Salt Lake City, Utah. (Applause from Utah delegation.) I take great pleasure in introducing to you Mr. John Dern, a man well known among the mining men of the West, who will respond on behalf of the state of Utah.

MR. JOHN DERN, of Utah: Mr. President and Delegates to the American Mining Congress, Ladies and Gentlemen: After listening to those splendid speeches of welcome with which we were greeted this

morning, and the forceful responses this afternoon, I hesitate somewhat, in my usual modest way, to come here and respond in behalf of the state which I love so well.

I am afraid this business of responding on behalf of the State of Utah is getting to be a habit with me. However, I do not consider it a bad habit, and on this particular occasion I take unusual pleasure in indulging it.

The Utah delegation is thankful for the cordial welcome it has received from Los Angeles, and we are glad to be here. Utah people are always glad to come to California, and whenever we want a holiday, we head in this direction. One of my fellow citizens has called Southern California a great playground. I dare say some of the men of Los Angeles, who are noted for their wonderful energy, will hesitate to accept this limitation, but considered as a playground, Southern California is certainly incomparable. And so when we want a change, we get on the Los Angeles Limited and run down here to rest up.

We make a good many claims for our own state, but when we are outdone, we freely admit it. We have a glorious climate, and the majority of the people of our state are Saints; but what does that amount to in comparison with a land where they have summer all winter long, and where they have a City of Angels?

I can say without hesitation that Utah has unbounded admiration for California, with its vast extent of territory, its wonderful diversified resources, its world-famed climate, and its enthusiastic, optimistic citizens. We hope we merit reciprocal sentiments on the part of California for Utah, and if we are forced to admit that in many things our big neighbor can produce bigger statistics than we, we are proud to explain that we are young yet.

This session of the American Mining Congress differs in a measure from those of the past. Heretofore we have subsisted principally on hope; now we can partake of the fruits of achievement. I refer to the fact that a Bureau of Mines has been established in the Department of the Interior, and thus one of the prime objects of this Congress has been, at least in a measure, accomplished.

The American Mining Congress has developed out of a meeting that was called in Denver, a number of years ago, for the purpose of arousing sentiment for the creation of a National Department of Mines and Mining, with a Cabinet officer at its head. It was recognized that the agricultural industry had been materially benefitted by the Department of Agriculture, and as mining is scarcely secondary to agriculture, and as all other industries may be said to rest upon these two, we maintained that mining should have similar recognition. Throughout the years of the existence of our organization, this principle has been adhered to and fought for. For a long while we seemed to make very little progress, but gradually the leaven began to work. During President Roosevelt's administration, an attempt was made to enlist his support for the propaganda. Mr. Roosevelt said the Cabinet was too large already, and he did not want any more secretaries, but he appreciated the importance of the mining industry, and declared himself favorable to the creation of a Bureau of Mines in the Department of the Interior. Our former president, Judge Richards, to whom the American Mining Congress owes a debt of gratitude for piloting it through seven troublous years, spent months at Washington, and the bill for a Bureau was passed by the House, but failed in the Senate.

Last summer I had the privilege and pleasure of a personal interview with President Taft, and he said he thought it would be absolutely impossible to get a department but agreed to support a Bureau of Mines, and advised us to accept that, in the hope that it might eventually develop into a Department of Mines and Mining, with a cabinet officer at its head.

At Goldfield, last year, our Congress decided to work for a Bureau of Mines at the ensuing session of Congress, and Secretary Callbreath was instructed to go to Washington for that purpose. His labors were



successful, and the Bureau of Mines is now an established fact. I am sure we are all glad to say that we appreciate the good work done by Mr. Callbreath in this matter, as well as in the other affairs of the American Mining Congress, to which he gives his undivided attention.

I also believe that I speak the sentiments of all of our members when I say I am more than gratified that the first chief of the Bureau of Mines is an old member of the American Mining Congress, that man of ability, energy, integrity and high ideals, Dr. Joseph A. Holmes.

And so we feel as if we had accomplished something,—as if the American Mining Congress had a worthy achievement to its credit. I confidently believe that the new Bureau will prove as beneficial as we have claimed it would be, and I expect the results will justify our efforts.

The fact that this object has been practically accomplished does not mean that the American Mining Congress no longer has any excuse for living. We have before us many grave and important questions, which vitally affect the mining industry. Our opinions and actions, if they are the result of careful deliberation and honest thought, will be not only welcomed but sought after by legislators and others who are desirous of reaching right conclusions. We ought therefore to feel encouraged by our success, and enter with renewed ardour upon a new era of usefulness.

Before I close I must make some pretense of speaking to my subject. I arose to respond on behalf of Utah. I have already occupied too much time to speak on this subject as I should like to, and I have no desire to inflict upon you a lot of statistics that you would not remember two minutes.

Utah is a state of large area, and great latent natural resources. To say that a state has great natural resources is generally something of a platitude, but applied to Utah it is a simple statement of fact. Originally Utah was simply an agricultural state, and agriculture, with its allied branches, such as stock raising, etc., continues to be its mainstay.

In mineral resources, however, we are wonderfully rich. Our coal production is already important, and we have immense coal measures that have not yet been opened up. We have deposits of iron which some day will form the basis of a great manufacturing industry. Our copper mines at Bingham are the wonder and admiration of the world, and the work there inaugurated is rapidly revolutionizing the copper industry.

In the production of silver, Utah is the fourth state in the Union, and in the production of gold, the fifth. Only two states produce more lead than Utah. It is therefore evident that we are justified in claiming a high mark as a mineral state. I will not refer in detail to our other mineral products, such as zinc, antimony, the hydro-carbons, fire clay, etc. Suffice it to say we have them all in abundance.

The smelting industry is represented perhaps in its highest development and excellence in the new plants in Utah, at Murray, Midvale, Garfield and Tooele. Utah has no competitor as the smelting center of the inter-mountain region.

Many people thing the climate of Utah is the best in the world. Those who consider twelve months of summer enervating, and yet do not like a polar winter, will be charmed with Utah's weather, which has all the seasons, but none of them to extreme.

Salt Lake City is growing rapidly, and is becoming one of the most beautiful cities in the United States. Our fine homes and broad streets, are admired by all travellers. In short, we are building up a city of which every citizen is proud, and we have a state the possibilities of which are yet undreamed.

I want to invite all of the members and delegates to stop in Utah on their way home, and I can promise you that you will be deeply interested if you will take the time to visit our mines, mills and smelters. I can also assure you that you will see a beautiful country, a prosperous people, and you will almost certainly have perfect weather in which to enjoy all that you may wish to see.

I thank you all for your kind attention.

PRESIDENT BUCKLEY: I am sure it will be a great pleasure for you to know that we have with us this afternoon a representative of one of our neighboring countries, and it will give us great pleasure to have a response from Mr. R. W. Brock, the Acting Deputy Minister of Mines of Canada. (Applause.)

MR. BROCK, of Canada: Mr. President, Ladies and Gentlemen: I am sure you will excuse me from making an address when I tell you that I have just stepped off the train and was not aware of what the proceedings of today were to be, so I have no address prepared. But I do wish to thank the citizens of Los Angeles and the members and president of the Sierra Madre Club, the citizens of California and the Southwest generally, for the kind hospitality which they have extended. It is a matter of great interest to us in Canada to follow the deliberations of the mining men of the United States, particularly the western men, because we have a very vivid recollection of what we in Canada owe to the mining men of the United States. Like Utah, Canada has been, until quite recently, an agricultural country. About twenty years ago the mining production was confined almost exclusively to coal, which was mined at the extreme east and extreme west of Canada. Thanks to the prospector of the West and the American mining engineer we now have a mining industry well established. The last year the mineral production was over ninety millions of dollars. When you consider that just a few years ago we had no industry you can see that we have got fairly started. It is always a pleasure for us to visit the United States and see the immense development which has taken place here. We are some years behind you, but are occupied with the same problems as you have here in developing the wonderful resources of half a continent.

Mining men are noble citizens of the world, and so in traveling through here we meet many old friends; in fact coming to the United States from Canada it is not, to us, coming to an alien land, but merely paying visit to our older brother. (Applause.)

PRESIDENT BUCKLEY: Some announcements will now be read by the secretary.

SECRETARY NORMAN: I have received the following resolutions for submission to the Resolutions Committee:

Resolution No. 1.

(By S. W. Mudd.)

Resolved that we endorse the policy of the officers of the United States Bureau of Mines in making their first concern the increase of safety in mining, and we request the extension of this work to cover metal mines as well as collieries; to that end we urge that rules and regulations for working mines be formulated in co-operation with working miners and mine operators, for guidance of federal inspectors in the territories, and to serve as a model for enactment by the states.

Resolution No. 2.

(By S. W. Mudd.)

Whereas, Excellent results have followed the laboratory studies of the Technologic Division of the United States Geological Survey,

Be it Resolved, That, we deem it of first importance that the United States Bureau of Mines establish a well equipped chemico-physical laboratory which shall be reserved exclusively for generic and fundamental problems, the solution of which will be of service to the entire industry—such as the safe and economical use of explosives, safe use of electricity in mines, the scientific study of the obscure chemical and

physical problems that underlie important metallurgical processes—but that any commercial or private work in this laboratory be absolutely forbidden.

Resolution No. 3.

(By S. W. Mudd.)

Resolved, That we recommend that the United States Bureau of Mines make special efforts to continually collate the complete and incomplete results of all workers along lines related to mining and metallurgy, particularly on broad and generic problems—as for example the abatement of damage from smelter fumes—and to publish these from time to time.

Resolution No. 4.

(By S. W. Mudd.)

Whereas, The lack of uniformity and intelligibility, their infrequency, and the inadequate character of reports now furnished by the directors of many mining corporations works a serious injury to legitimate prosecution of the industry, we believe that for the full protection of investors, every mining company should incorporate in its annual report the following essential items of information:

(1) A brief review of the past history of the property, the work accomplished and the results obtained, with tabulated statement of expenditures and receipts from the beginning, marketable products made each year, and the sums received from the sale of same, the annual net earnings and the disposition made of such earnings.

(2) A similar review, but in more detail, of the work of the year, with statements of the assets and liabilities (these statements to show all details as to capitalization of the company; the number and classes of shares outstanding at date of the report; the respective rights of these shares; the number of shares remaining in the treasury; any options or contracts on such shares; any bonded indebtedness), receipts and disbursements, cost sheet, and other information as to work accomplished and results obtained.

(3) A statement of ore reserves at the date of the report, compared with the reserves of the previous year, with an estimate, by the officers of the company, of the probable life of the mine, and a valuation of the property, accompanied by statement of the data upon which such valuation is based.

Resolved, That we recommend that the Bureau of Mines draft a form of annual report from directors of mining and oil corporations, for publication, that will enable stockholders to form an intelligent idea of the value of their property.

Resolution No. 5.

(By S. W. Mudd.)

Resolved, That we especially urge that reports of all investigations by the United States Bureau of Mines be given prompt publication and distribution.

Resolution No. 6.

(By S. W. Mudd.)

Resolved, That we urge that examination of all lands claimed as mineral in the National Forests be made by experts detailed for that service from the United States Geological Survey or the United States Bureau of Mines, whichever may prove the more feasible, to the end that bona fide locators be protected in their rights and prompt decision be rendered in contests.

PRESIDENT BUCKLEY: These resolutions will take the usual course and be referred to the Committee on Resolutions.

PRESIDENT BUCKLEY: Is there any further business to come before this meeting? If not we will stand adjourned until seven o'clock this evening.

A recess was thereupon taken until seven o'clock P. M.

MONDAY, SEPTEMBER 26, 1910.

Evening Session.

The convention was called to order at 7:30 o'clock P. M.

The secretary read a telegram from John Hays Hammond, expressing inability to be present at the Congress.

Gloucester, Mass., Sept. 28, 1910.

J. F. Callbreath, Secretary,
American Mining Congress,
Los Angeles, Calif.

Please express to my friends at Mining Congress my sincere regret at my inability to meet with them. Wish all a delightful and successful meeting, which is assured by the hospitable people of Southern California. Assure them of my earnest desire to assist in the good work they have in view.

JOHN HAYS HAMMOND.

THE SECRETARY: I wish to particularly request that the speakers of this evening, Dr. Buckley, who will render his annual address, and Mr. Gifford Pinchot, who will speak upon conservation as it affects the oil industry of California, be not interrupted during their speeches. Plenty of time will be given during the week to those who disagree with them in the opinions expressed, and if they will notify the secretary they will be given an opportunity to express those opinions.

I wish to extend an invitation to the officers, members and delegates of the Mining Congress, to a reception which will take place directly after this meeting at the Sierra Madre club, to which gentlemen only are invited.

I also wish to state that all delegates to the Congress who have not yet received visitors cards to the Sierra Madra club, can obtain them upon request at the Bureau at the Alexandria hotel or at the club.

THE CHAIRMAN: Members of the American Mining Congress, and Delegates, Ladies and Gentlemen: We have had a very successful and satisfactory gathering here this afternoon listening to the splendid addresses of welcome tendered to the delegates and members, from your Los Angeles people, and we have had good responses from members and delegates from other states this afternoon. Dr. Buckley, the president of the American Mining Congress, will now deliver his annual address. I take great pleasure in presenting to you Dr. Buckley.

DR. BUCKLEY: Ladies and Gentlemen: I appreciate the fact that many of you are here to listen to an address on conservation, but it is always well to reserve your pie to the last, so if you will bear with me while the members and delegates receive some preliminary instruction with regard to conservation and other matters, I assure you you will be well rewarded by the speaker who follows me.

I will also have to ask your indulgence in using a manuscript this evening, for were I not to use a manuscript, I am afraid there would be no time left for the speaker who follows, there are so many things for the consideration of this body of mining men.

Dr. Buckley's address will be found on page 197 of this report.

THE CHAIRMAN: Ladies and Gentlemen: I shall not indulge in any long remarks in introducing the next speaker, because I fully realize you came here to listen to him and not to me. I take great pleasure in introducing to you the Honorable Gifford Pinchot, who will now address us on the subject of "Conservation as it Affects the California Oil Industry."

Mr. Pinchot's address will be found on page 331 of this report.

THE SECRETARY: The discussion on the oil question will be continued tomorrow by eight or ten speakers announced on the regular program, starting at 10 o'clock.

Whereupon an adjournment was taken until Tuesday, September 27, 1910, at 10 o'clock A. M.

TUESDAY, SEPTEMBER 27, 1910.

Morning Session.

PRESIDENT BUCKLEY: The Congress will please be in order. The nominations for the Resolutions Committee so far received are as follows:

Names of Members of Resolutions Committee.

Arizona	Col. L. W. Powell
Arkansas	A. Lofton
California	Edward H. Benjamin
Colorado	Charles F. Potter
Connecticut	Walter Harvey Weed
Canada	Hon. R. W. Brock
District of Columbia	F. L. Ransome
Florida	Dr. Clarence Hutchinson
Idaho	H. G. Redwine
Illinois	Lyman A. Sisley
Mexico	H. P. Wagner
Minnesota	J. J. McCurdy
Missouri	O. H. Picher
Montana	Paul Jahnke
Nebraska	Col. Geo. W. E. Dorsey
Nevada	H. C. Jones
New Mexico	Geo. H. Utter
New York	E. S. Mendels
Ohio	Frank Kirk
Oklahoma	D. M. Hailey
Oregon	Victor H. Wilhelm
Pennsylvania	F. C. Bingham
South Dakota	F. R. Baldwin
Utah	J. P. Jennings
Texas	C. O. Lagerfelt
Washington	Dr. F. O. Hudnutt
Wisconsin	H. C. Holthoff
West Virginia	Frank E. Parsons
Wyoming	William Fitzhugh

I wish to announce that the Resolutions Committee will meet in the committee room at the left of the foyer or left entrance in the men's waiting room at 1:30 o'clock this afternoon for organization.

Resolution No. 7 as follows, by Mr. David Ross, was read by the secretary.

Resolution No. 7.

(By David Ross, of Illinois.)

Whereas, The records of industrial accidents show that a considerable per cent is due directly to the hazard of the work and the mechanical means by which it is now performed;

And Whereas, In this numerous class of cases it is impossible for those sustaining injuries to recover damages under any liability law requiring proof of negligence:

Resolved, That it is the sense of this Congress that in order to remove the cause of much expensive and detrimental litigation, and to guarantee a reasonable measure of protection to those who daily risk their lives in mining and other productive occupations of the country, that laws should be enacted in the different states specifically defining the duties of employers in this respect by providing definite compensation in the case of all injuries.

Believing that such legal requirements would result in greater caution thereby tending to reduce the number of fatalities and to that extent conserving the lives of our citizens, the Congress expresses its earnest conviction of the justice of making such provisions against the financial losses sustained through accidents and pledges its influence and support in behalf of such legislation by the federal and state governments.

PRESIDENT BUCKLEY: This resolution will be referred to the Committee on Resolutions.

COLONEL ED. F. BROWNE, of Colorado: Mr. President, I want to make inquiry as to the form of our proceedings. In several of the meetings preceding this, I protested against the reference of all resolutions to a committee, and only those resolutions which should be passed by the committee being presented back to the Congress for discussion. The Congress is not a political gathering, but is open for discussion, and the theory that would allow a committee to drown a resolution which would be of importance to the mining interests would be one that is fraught with great danger and that would in time drive away a great deal of the support we require.

PRESIDENT BUCKLEY: I will state for the benefit of the gentleman that our constitution and by-laws provide that these resolutions shall be read before the Congress and referred to the Committee on Resolutions.

COLONEL BROWNE: Will they return them?

PRESIDENT BUCKLEY: They will return them to this Congress. I wish to state further, for the benefit of those not here yesterday, that any man who is interested in any particular resolution will have an opportunity to be heard before the Resolutions Committee and if he is not satisfied with the hearing there he can be heard when the resolution is reported back to the house.

COLONEL BROWNE: That is satisfactory.

MR. CHARLES F. POTTER, of Colorado: Mr. President, I desire to offer the following resolution:

PRESIDENT BUCKLEY: The resolution will be handed to the secretary and read from the platform.

MR. POTTER: On the reading of this resolution I move that the rules be suspended and the resolution put upon its passage at this time.

Secretary Norman then read resolution No. 8 as follows, by Mr. Potter.

Resolution No. 8.

(Introduced by Charles F. Potter, of Colorado,)

Resolved, That, recognizing the value and importance of the Bureau of Mines to this country, The American Mining Congress in meeting assembled at Los Angeles, California, takes this means of expressing to the president of the United States and to the Senate and House of

Representatives, its thanks and appreciation for the enactment of a law establishing a national head for the great mining industry.

MR. POTTER: Mr. President, if I may be heard, I now offer a motion that this resolution be put upon its immediate passage, and that the rules be suspended. I think we have that right by unanimous consent.

PRESIDENT BUCKLEY: The motion is made and seconded that the rules of this Congress be suspended, and that this resolution be considered at this time.

I wish to say that it has been the custom of this organization with regard to resolutions affecting the Bureau of Mines and the Department of Mines to pass them without having them referred to the Committee on Resolutions; but this is the only resolution which the Congress has taken such action upon.

The motion to suspend the rules carried and the resolution was unanimously adopted.

SECRETARY NORMAN: I have here a resolution presented by George W. Parsons, of the Los Angeles Chamber of Commerce Mining Committee:

Resolution No. 9.

(By Geo. W. Parsons.)

Resolved, That we approve and urge the continuation of the wise policies of the state and counties in saving life and preventing suffering in the arid regions by providing desert wells and water-saving devices; by erecting permanent guide posts directing to water, with severe penalties provided for their removal or defacement; and by protecting springs, wells and water holes from contamination under heavy penalties.

And that we recommend the co-operation of the Bureau of Mines in locating and maintaining these water sources and in disseminating accurate information concerning them, through maps, reports, and we further recommend congressional action in the matter.

PRESIDENT BUCKLEY: This resolution will be referred to the Resolutions Committee. Are there any further resolutions to be submitted?

SECRETARY NORMAN: I also have a resolution introduced by Charles F. Potter of Colorado, reading as follows:

Resolution No. 10.

(Introduced by Chas. F. Potter, of Colorado.)

Resolved, That, in common with citizens of the United States engaged in other industries, we approve the theory and practice of true conservation, which means utilizing and developing with the least possible waste, the natural resources of our country.

We recognize, as men engaged in one of the most important industries of our country the value of true conservation and its intimate relation to the mining interest, and recommend the enactment of such legislation both state and national, as will bring about a beneficial development of the mines, the public lands, the public water rights, and the timber within our great western country for the best interests of the present and future generations without unnecessary waste.

We condemn, however, as unwise, as opposed to the best interests of the American people, and as wholly unnecessary to the success of any plan of true conservation, legislation or proposed legislation which tends to make the miners and other citizens of the public land states who invest their time, labor and capital in the development of the

natural resources contained within such states, lessees of, or tribute payers to the national government.

PRESIDENT BUCKLEY: This resolution will be referred to the Committee on Resolutions.

COLONEL ED. F. BROWNE: Mr. President, I desire to offer the following resolutions by request:

Resolution No. 11.

(By Ed. F. Browne.)

Whereas, The president has withdrawn all coal from entry in the western states, and an ill-considered law has been passed attempting to segregate the coal beneath from the surface rights, and

Whereas, The conservation Congress at St. Paul recommended that all minerals be so segregated and that hereafter leases be given and a royalty charged on production and that the title to mineral remain in perpetuity with the central government, and

Whereas, This condition would absolutely destroy the great mining interests as without title to property mining capital cannot be obtained. A forfeitable lease offers no security to stockholders of a company, and in addition it takes away from a miner his chance for fortune, and will impair the value of many millions of dollars already invested. It would destroy the value completely of millions of dollars worth of locations still unpatented and take from mining prospectors the incentive which has created our phenomenal success.

It Is Resolved, That we protest against the attempt to segregate the surface from mineral property and that the proposition to lease the mineral is rank socialism adopted from the ways of Tasmania, New Zealand and Australia, and against public policy. We call on congress to abrogate the law regarding coal segregation, and that title to mining property be granted in the future as in the past. We demand this as a constitutional right, in all states heretofore admitted to the Union, and as an act of justice in the territories controlled by Congress.

Resolution No. 12.

(By Ed. F. Browne.)

Whereas, The strict regulations of the Forestry department have created conditions which prevent prospecting or new mine development in the most promising section of the mining states.

Whereas, The economic importance of the mining industry was recognized when the so-called forest reserves were permitted, and the law expressly states that mining location and development should not be retarded, and

Whereas, The Forestry Department has assumed to interfere with prospectors and the locations made, and have protested in the land office against thousands of applications for patent, assuming that the parties making the location were either ignorant or trying to encroach on the reserves for some ulterior purpose.

It Is Resolved, That we demand that miners who are citizens of the United States be given free entry into the so-called Forest Reserve, without requiring permit or making explanations to forest officials, and that they be allowed to make location free from duress and in the same way as though no Forest Reserve had been created. That the location papers be allowed to go on record, camps established and the land office opened to them to apply for a patent in the usual way.

Resolved, That the Forestry Department be debarred from becoming a party to a protest of a mining claim, before the land office. The assumption that a miner who had made a location and in good faith had done the \$500.00 worth of work, necessary to enable him to apply for a patent, was a timber thief in disguise, or a fool wasting his money, is unwarranted and preposterous. Some of our greatest mines

were abandoned by the original locators and our most wonderful mining districts condemned by experts.

Resolved, That the right to use forest products for cabin and mine building, mine timbers and wood for domestic purposes be restored as provided in the mining laws yet unrepealed and that the effort to prove trespass and impose fine in case of such use is an illegal act. The most valuable use for timber is for camp and mine development.

Resolution No. 13.

(By Ed. F. Browne.)

Whereas, The pretense of so-called "Conservationists" that they are seeking to protect and conserve the mineral resources, the coal lands and the timber land of the United States for the benefit of the whole people is a mere sham and pretense and is intended to place these vast national resources in the hands of a bureau with headquarters at Washington, with power to lease and dispose of these national resources to favored individuals and great monopolies, and to handle the mineral resources and coal lands in the future as they have already handled the timber lands in the past, by leasing such lands and by selling the timber thereon in quantities of millions of feet at a single letting and covered by a single contract.

And Whereas, This pretended policy of conservation precludes millions of American citizens, not able to take and carry out the bureau contracts, from acquiring a limited quantity of mineral, coal or timber lands, it directly fosters monopolies and prevents the distribution of the national wealth among the whole people,

Therefore Resolved, That we protest against a bureaucratic method of handling the national resources and demand their fair distribution among the whole people.

PRESIDENT BUCKLEY: They will be referred to the Resolutions Committee.

SECRETARY NORMAN: I have a resolution presented by Mr. C. P. Fox of Bakersfield, which I will read:

Resolution No. 14.

(By Chas. P. Fox.)

Whereas, The American Mining Congress is composed of miners of gold, silver, copper, lead, coal and similar minerals and metals, an industry in itself, separate and distinct from any other, requiring legislation specially adapted to its needs; and

Whereas, The oil industry is a business entirely separate and distinct from that of mining the minerals and metals set forth above, and one requiring legislation along distinct lines from that required by the mining industry; and

Whereas, The government's policy of classifying the oil men as miners and oil claims as placer mining claims is based purely upon a legal fiction and a subterfuge rendered necessary solely because of the lack of any legislation governing the disposal of government oil lands, and said classification of oil claims as placer claims has resulted in great complications in the laws, rendered titles insecure, led to the seizure of property by force and endangered the security of life on numberless occasions; and

Whereas, The oil industry is today facing a crisis in legislation matters a crisis which must be dealt with in the most careful manner and only by those who thoroughly understand the needs of the industry, peculiar to itself and understood by very few outside its ranks; and

Whereas, The mining industry of the United States is likewise facing a serious condition in its affairs, one requiring attention and careful study by experts to understand its peculiar needs; and

Whereas, It is impossible in the limited time at the disposal of the American Mining Congress for its members to post themselves thoroughly on the needs of the oil industry, and it would be inadvisable for them to undertake to deal with the affairs of a separate and distinct line of business, and equally inadvisable for the oil men who know nothing of mining to interfere in the affairs of the mining industry.

Now Therefore, Be it resolved that the American Mining Congress declares its sympathy with the oil men in their efforts to obtain justice and to secure the enactment of immediate legislation and would stand ready to assist along these lines were such assistance desirable, but in view of the conditions above set forth such a course is not to the interest of either party, and therefore the American Mining Congress declines to commit itself to any policy with reference to legislation governing oil lands and is convinced that such subjects had best be left to the attention of those most interested who understand the subject; and moreover, it is equally undesirable to the mining men that those whose interests are distinct should participate in the settlement of affairs that relate entirely to the mining industry it is therefore proper that the oil and mining industries should remain distinct, each having its own organization.

SECRETARY NORMAN: I have here a communication from the California Oil Miners Association of Bakersfield, signed by Charles P. Fox, president, and Mr. Johnston, secretary:

Resolution of the California Oil Men's Association.

Resolved, That the California Oil Men's Association requests and it does hereby request the American Mining Congress to refrain from taking any action relative to petroleum bearing lands not yet patented by the government and lying within the state of California.

This request is made in order that an already complicated situation shall not be further complicated.

The California Oil Men's Association has a definitely outlined plan of work which it is pursuing and it believes that action now by the Mining Congress will be unwise for the reason that it is impossible that the members thereof can arrive at a just conclusion in the premises in the limited time at their disposal.

CHAS. P. FOX, President.

G. JOHNSON, Secretary.

PRESIDENT BUCKLEY: The time has arrived when we are to take up the discussion of "The Federal Government and the Oil Industry." This session has been set aside for the discussion of this subject by the program committee. The speakers of this morning have been given fifteen minutes each in which to present their views on this important problem. I take pleasure in calling upon Congressman S. C. Smith of Bakersfield, California, to open this discussion.

Mr. Smith's address will be found on page 358 of this report.

PRESIDENT BUCKLEY: We have a pretty full program this morning and this afternoon. I am sure we will be very glad to have all the speakers have all the time they need to discuss this important problem, but in justice to those who are on the program I trust the speakers will confine themselves as nearly as possible to the time limit placed on the addresses. I have the pleasure of calling upon Mr. Charles P. Fox to continue the discussion.

MR. CHARLES P. FOX, of California: Mr. Chairman and Gentlemen: This is my first notice of the distinguished honor that has been conferred upon me. I was just out here talking with Mr. E. S. Mendels of the New York Curb Exchange, who says that he is taking steps to prosecute a lot of fake oil companies, people who live in New York and fake on California oil, and he tells me that if he can "get the goods

on them" he is going to put them in jail for perjury and for obtaining money under false pretences, and I am glad he is here. (Applause.)

California oil is a subject which is entitled to a whole lot of consideration; but the California oil faker, or, rather, the fellow living in New York, Boston or Chicago or somewhere else, who fakes through the medium of California oil and uses that as an excuse to sell nothing for a whole lot of money—in that respect the subject of California oil deserves a whole lot of attention, and I think the United States government, through its Postal Department, ought to give quite a lot of consideration right now to that matter.

I do not know what I am expected to say. This is a meeting of conservationists and anti-conservationists, I assume. I do not know of anybody who has studied the subject at all who is not of one opinion or the other.

Now, so far as the unpatented oil lands of California are concerned, it is my firm opinion that we shall be able, as oil men—I speak as an oil man—if we are wise and careful, if we do the thing as we ought to do it,—it is my opinion that we shall get out of our troubles, and carry to patent every legitimate oil claim that was initiated before it became unlawful to initiate a claim. And it is my further opinion—and I have introduced a resolution to that effect which has been read—that if this Congress takes up this subject now for the oil men, assuming that you people are not all oil men but mostly metal miners, if you take up this subject and resolute and declare and define a policy or express some positive ideas one way or the other you are going—innocently and with the best intentions in the world—you are going to do the California oil men a whole lot of harm and hurt and damage, and I hope that you never will do that thing.

You cannot arrive at a wise decision respecting the position of the oil men by listening to a half dozen speeches from Mr. Smith and Mr. Barlow and Mr. Short and Mr. Graham and Mr. Tom O'Donnell and myself and half a dozen more—you cannot, I say, arrive at a wise and just decision, for this reason: You cannot get out of us enough of the facts, enough information, upon which to base that decision, because there are men in this business who have been here for fifteen years who are vitally interested in the decision of the question, who cannot make up their minds yet. We don't know. Now, how in the world can we come here and tell you so that you may know what to do? We, ourselves, do not know what to do. Now, please do not tell us what to do. Please do not let it go out over the United States that the American Mining Congress has declared that the oil men of California should have such and such legislation, should have such and such attention on the part of the departments, because maybe you are wrong—probably you will be wrong. So I beg of you and I beseech you to take a non-committal attitude, to express your fellowship, to express your sympathy, to express the hope that we will win out, but do not tell how that shall be done.

I thank you. (Applause.)

PRESIDENT BUCKLEY: This discussion will be followed by an address by ex-Congressman C. A. Barlow of Bakersfield.

Mr. Barlow's address will be found on page 366 of this report.

PRESIDENT BUCKLEY: The discussion will be continued by Mr. S. C. Graham of Los Angeles. (Applause.)

MR. GRAHAM: Mr. President, Ladies and Gentlemen: I am not accustomed to speaking in public, and I have prepared something here which I want to read. I want to be sure that I say nothing that I do not want to say, and that I am not quoted as saying anything that I have not said.

Before I begin reading the paper, however, I want to just point out one mistake I think Congressman Smith made when he spoke of

the difference between natural and national resources. Now, natural resources, when owned by the government, are national resources.

Mr. Graham's address will be found on page 385 of this report.

PRESIDENT BUCKLEY: The discussion of this matter will be continued by Mr. T. A. O'Donnell of Los Angeles.

Mr. O'Donnell's address will be found on page 342 of this report.

PRESIDENT BUCKLEY: If there is no further business to come before the house we will stand adjourned until half past two o'clock this afternoon.

Whereupon a recess was taken until 2:30 P. M.

TUESDAY, SEPTEMBER 27, 1910.

Afternoon Session.

THE CHAIRMAN: The Congress will please come to order. There are some announcements to be read by the secretary.

THE SECRETARY: A letter from the Hon. W. F. Englebright, member of Congress of the First California District:

Nevada City, Cal., Sept. 24, 1910.

Mr. H. C. Freeman, Secretary Convention Committee,
American Mining Congress,
Los Angeles, California.

My Dear Sir:—

As other engagements, which I could not forego, prevent my being present at the American Mining Congress, I would be pleased if you will explain my absence and assure all members and delegates who attend that my heart is in the work being taken up by the American Mining Congress, and I regret very much my inability to be present and that their deliberations will be of the greatest interest to me and I shall be pleased at all times to further the mining industry in every way possible, and do what I can to carry out the policies of the American Mining Congress.

I remain,

Sincerely yours,

W. F. ENGLEBRIGHT,
M. C., First California District.

Resolution No. 15, submitted by E. S. Mendels, of New York, read and referred to the Committee on Resolutions.

Resolution No. 15.

(By E. S. Mendels of New York.)

That in view of the many attempts that are made to float securities of mines, oils and other industrial corporations on the unsuspecting public, which are classed as wild cats, fakes and swindles,

Be It Therefore Resolved, That it is the sense of this Congress that the following requirements for public information should be made and filed with the proper county or state authorities, such place of filing to be stated, in all cases where circulars or other matters relating to all companies who desire capital for the furtherance of their enterprise are published and circulated:

- 1st. Title (in full).
- 2nd. Location.
- 3rd. Product of Company.
- 4th. When and where Incorporated.
- 5th. General office located.

- 6th. Transfer Agency, where situated.
- 7th. Registrar of stock (must be corporation) where situated.
- 8th. Stock, common shares authorized.
- 9th. Par value of same.
- 10th. Stock, common shares outstanding.
- 11th. Shares in treasury.
- 12th. Stock, preferred shares authorized.
- 13th. Par value of same.
- 14th. Stock, preferred shares outstanding.
- 15th. Shares in treasury.
- 16th. Dividends, rate, when declared, where payable, and last dividend paid and amount.
- 17th. Bonds, state class of mortgage, when dated, when due and interest rate, when and where payable.
- 18th. Bonds, total issue authorized.
- 19th. Bonds, amount issued.
- 20th. Names of officers and directors, address and personal references of each.
- 21st. Numbers and denominations of stocks or bonds on which transfer has been stopped and the cause therefor.
- 22nd. Statements of assets and liabilities, earnings and expenses, signed by an officer of the company, with seal attached, and sworn to before a proper court officer or notary public.
- 23rd. Engineer's report. Certified and sworn to.
- 24th. Certified copy of the charter.
- 25th. Maps of the property.
- 26th. All matter printed or otherwise relative thereto.
- 27th. Certified copy of the leases.
- 28th. Confirmation of the titles, etc., certified.
- 29th. Balance sheet. From 19 to 19.
- Assets:**
 - Cash on hand.
 - Cash in bank.
 - Accounts receivable:
 - Ore and Bullion.
 - With smelters and bullion dealers.
 - Concentrates ready for shipment.
 - Bullion in vault ready for shipment.
 - Ore on dump and ore broken in mine.
 - Stores and supplies.
 - Plant tools and equipment.
 - Mining rights, property, etc.
 - Total.
 - Grand total.
- Liabilities:**
 - Unpaid interest.
 - Unpaid dividends.
 - Notes and accounts payable.
 - Trade creditors and miscellaneous.
 - Officers of the company.
 - Employees, for wages.
 - Reserve for transportation and treatment.
 - Surplus.
 - Capital and surplus.
 - Total capital, common, preferred.
 - Par value common shares in treasury.
 - Par value preferred shares in treasury.
 - Dividends, rate, when and where payable.
 - Date of last dividend paid.
 - Bonds (state first mortgage or otherwise.)
 - Bonds, \$ outstanding.
 - Bonds, \$ in treasury.
 - Bonds, denomination (if coupon or registered.)

Bonds, when dated, when due.

Bonds, interest, when and where payable.

Notes for general information:

Dated at ----- 19 ----- Treasurer.

30th. Statements of earnings and expenses, ----- 19 -- to

----- 19 --

Earnings:

Income from operation, \$

Ore sales, \$

Bullion sales.

Ground rent.

House rent.

Interest on deposits.

Other incomes.

Gross total income.

Expenses:

Expenses of operation.

Mining.

Milling.

Written off book inventory.

Installation and repairs.

Depreciation.

Plant discarded.

Boarding house.

Expenses of administration.

Surplus \$

Notes for general information:

Dated at ----- 19 -- ----- Treasurer.

In case of companies other than mining similar statements of facts should be made on the same class of forms as adapted to the particular class of such corporation.

Resolved, That officials of companies, promoters, engineers, bankers, brokers, and newspapers making mis-statements of facts be reported to the federal or state authorities for criminal action and that the use of the mails be refused and fraud orders issued for the protection of the public.

Resolution No. 16, submitted by J. W. Dawson, of Charleston, West Virginia, read and referred to the Committee on Resolutions.

Resolution No. 16.

(Introduced by J. W. Dawson of West Virginia.)

Whereas, The President of these United States, in whose sincerity of purpose and great ability we have the utmost confidence, in his address before the Conservation Congress at St. Paul, Minn., so earnestly and properly insisted upon the speakers and delegates refraining from generalities and platitudes and confine their remarks to suggestions of plans by which more might be accomplished than had been done to conserve our resources;

And, Whereas, The conservation of bituminous coal is one of great importance to this nation;

And, Whereas, Unlike other manufactured products the condition under which this valuable necessity is marketed prevents the producer from deriving a sufficient profit to enable him to conserve the coal in the ground or the lives and limbs of those thousands of miners who labor in the bowels of the earth, by the installation of the most modern appliances and adopting the most approved methods of mining by which a far greater tonnage than is now produced could be mined from each acre of coal area instead of leaving a large portion of it in the ground in such shape that it can never be gotten out;

And, Whereas, Notwithstanding the many statements sent broadcast from time to time that the producers of bituminous coal are robbing

the consumers by charging an exorbitant price for it, said statements being made by men of prominence and well informed on most subjects, show conclusively that they willfully misrepresent the facts relative to the marketing of coal or that they undertake to discuss a most important subject relative to which they are grossly ignorant, and a subject concerning which they could easily obtain accurate, reliable and exhaustive statistics by simply calling upon the heads of the mining bureaus of our various coal producing states, which statistics would correctly show that the coal from most of our states having the greatest deposits of the highest grade bituminous coal and from which the greatest tonnage is now being produced, is sold by the producer at a price that nets him an average annual profit of less than ten cents a ton, and in many cases and for long periods of time at a price below actual cost of production, notwithstanding the fact that the production of coal is one of the most hazardous and dangerous enterprises in which funds can be invested or labor be employed;

And, Whereas, The larger as well as the smaller producer of bituminous coal has for years been forced to market his product at an actual loss or a profit which is insignificant when compared with the nature of the investment and the hazard surrounding it;

And, Whereas, This deplorable condition of the coal trade is largely the result of the producers of coal being unwilling to do what might be technically construed as a violation of the Sherman anti-trust law;

And, Whereas, The coal operators of one state cannot adopt any substantial changes from present practices unless similar actions are taken by the operators of other states;

Be It Therefore Resolved, That it is the sense of this Congress that the Sherman Anti-Trust law should be so construed, changed or amended, if amendment be necessary, as to, without its violation, admit of such understandings and co-operation between the producers of bituminous coal as would admit of the marketing of that product at a reasonable profit to the producer to the end that he may receive a fair return on his investment and at the same time conserve the coal supply in the ground, and, which is of even much greater importance, conserve the lives and limbs of the noble miners who take such bodily risk in the production of the coal.

Resolution No. 17, submitted by Tracy C. Becker, of Los Angeles, California, read and referred to the Committee on Resolutions.

Resolution No. 17.

(By Tracy C. Becker, of Los Angeles.)

Whereas, It is well known that it is the uniform practice of the railroad companies to fix their rates and charges for transporting ores on the basis of "what they believe the traffic will bear," and not as just and reasonable compensation fixed on the basis of the cost of carrying the ores or the risk in carrying the same;

And, Whereas, It is manifest, because of the weight of ore bearing rock carried in proportion to the value of the ore which can be extracted therefrom, that, except in the case of ores or concentrates which carry enormously high values per ton, there is no greater cost of transportation or risk of loss in carrying ore bearing rock which produces at the smelters \$100.00 per ton, than rock which produces \$10.00 per ton, while the railroad companies charge many times as much for carrying the former as for carrying the latter;

And, Whereas; The Congress of the United States has recently amended the Interstate Commerce Act so as to confer greater power and authority upon the Interstate Commerce Commission than it has heretofore had, to investigate as to all railroad rates and to fix and regulate the same so that they shall be just and reasonable both to the common carrier and to the public, and the legislatures of various states

have adopted, or will soon adopt, laws fixing maximum rates to be charged for carrying intra-state freight and empowering their State Railroad Commissioners to investigate, fix and regulate such freight rates;

Therefore, Be It Resolved, That a special committee of three members of this Congress be appointed by the president thereof to investigate the matter of the rates charged by the railroad companies for carrying rock bearing gold, silver and other ores which are usually necessarily transported from the mines to the smelters for extracting the precious metals therefrom, and that this committee be given full power to employ expert assistants and legal counsel and to take such proceedings as it may deem advisable to present the matter of the railroad freight rates on such ores to the United States Interstate Commerce Commission and to such State Railroad Commission or other authorities as they may deem proper, and endeavor to procure so far as practicable, reasonable and just railroad freight rates and charges for transporting such ores.

Resolution No. 18, submitted by Mark B. Kerr, of San Francisco, California, read and referred to the Committee on Resolutions.

Resolution No. 18.

(By Mark B. Kerr, of San Francisco, Calif.)

Whereas, Considerable aid has been given by the federal government in building dams for irrigation, care of forests and other matters of development of the natural resources of the country;

Be It Resolved, That the Congress ask federal aid in building restraining dams for impounding quartz, mill tailings and drainage tunnels at such points in those quartz mining districts deemed necessary by the Bureau of Mines.

THE CHAIRMAN—Are there any other resolutions to be introduced at this time? I will suggest again that any one having resolutions to introduce, it will be well to introduce them early in the session. If they are delayed until the latter part of the week, the possibility is that they will not be given sufficient consideration by the Resolutions Committee, and we may not have time for action by the body at large.

We will now take up the program for this afternoon, continuing the discussion of this morning relative to the disposition of oil lands, especially with respect to California. This discussion will be continued by Mr. George E. Whittaker of Bakersfield.

Mr. Whittaker's address will be found on page 379 of this report.

THE CHAIRMAN: The secretary has in his possession a letter from the Secretary of the Interior, Mr. Ballinger, which will be read at this time.

Mr. Ballinger's communication will be found on page 286 of this report.

THE CHAIRMAN: We will now have the pleasure of listening to Hon. Frank H. Short of Fresno. (Applause.)

Mr. Short's address will be found on page 347 of this report.

PRESIDENT BUCKLEY: The discussion will be continued by Mr. Thomas E. Gibbon of Los Angeles:

Mr. Gibbon's address will be found on page 369 of this report.

THE CHAIRMAN: This concludes the discussion of this part of the program, which was postponed from this forenoon. We will now proceed immediately to the program for this afternoon. I wish to announce at this time, however, that on Thursday morning it is expected that the Resolutions Committee will report back to the Congress, the

resolutions bearing upon the subject of conservation and ownership of public lands, and that during that session opportunity will be given for the discussion of the resolutions reported back. I wish to announce that any one who desires to be heard on these resolutions may appear before the Resolutions Committee before they are reported back.

I wish that the members of the Congress would remain during the remainder of this session, because we have some important addresses. The first address for the afternoon is by a gentleman who is well known to you, a member of the United States Geological Survey, and chief statistician, Mr. E. W. Parker, who will now address you on the subject of conservation of coal.

Mr. Parker's address will be found on page 228 of this report.

THE CHAIRMAN: The next order of business will be an address by Mr. George S. Rice, of the Bureau of Mines of Washington, D. C., the subject being "Investigation of Mine Accidents."

Mr. Rice's paper will be found on page 235 of this report.

THE CHAIRMAN: Will you please remain seated for just a moment. We have another address this afternoon on our program, but as the hour is late and the time of adjournment has arrived, we will have to dispense with it for today, but will listen to the Resolutions Committee report, which will be very short.

MR. DORSEY: The Committee on Resolutions will meet at our room at the Alexandria hotel immediately after the adjournment of this session. Tomorrow morning at nine o'clock the Committee on Resolutions will consider the resolutions pertaining to conservation, so as to report to the Congress Thursday morning, and we can have an open discussion at that time. Those who introduced these resolutions on conservation are invited to meet with the committee tomorrow morning at the Alexandria hotel.

Mr. Chairman, your Committee on Resolutions report favorably resolution No. 1, which I will ask the secretary to read.

The secretary then read resolution No. 1.

MR. DORSEY: I move the adoption of the resolution, Mr. Chairman.

Motion seconded, put and carried.

Resolution No. 1, as adopted, will be found on page 173.

MR. DORSEY: The committee reports resolution No. 2 favorably, which I will ask the secretary to read.

Secretary then read resolution No. 2.

MR. DORSEY: I move the adoption of the resolution.

Motion seconded, put and carried.

Resolution No. 2, as adopted, will be found on page 173.

MR. DORSEY: Mr. President, I report favorably resolution No. 3, which I will ask the secretary to read.

Resolution No. 3 was then read by the secretary.

MR. DORSEY: I move the adoption of that resolution.

Motion seconded, put and carried.

Resolution No. 3, as adopted, will be found on page 173.

MR. DORSEY: Mr. President, I report favorably resolution No. 5, which I will ask the secretary to read.

The secretary then read resolution No. 5.

MR. DORSEY: I move the adoption of that resolution.

Motion seconded, put and carried.

Resolution No. 5, as adopted, will be found on page 174.

MR. DORSEY: Mr. President, the committee authorizes me to report favorably resolution No. 9, which I will ask the secretary to read.

The secretary then read resolution No. 9.

MR. DORSEY: I move the adoption of the resolution.

MR. DAVID T. DAY: I would like to know whether that was the language of the original resolution, or whether it has been modified in the committee?

MR. DORSEY: It is the language of the original resolution with the exception of striking out "we recommend to the Geological Survey and Bureau of Mines." The author of the resolution was present, and on the suggestion of a member of the Committee on Resolutions that that be stricken out and leave it all to the Bureau of Mines, he accepted that change.

The question was put and carried.

Resolution No. 9, as adopted, will be found on page 174.

THE SECRETARY: Resolution No. 19 offered by a member, the president has asked me to read.

Resolution No. 19.

Resolved, That the American Mining Congress, in thirteenth annual convention assembled, representing every phase of the mining industry of the United States, tenders to the Hon. William H. Taft, President of the United States, its sincere appreciation of his action in appointing Dr. Joseph A. Holmes first director of the Bureau of Mines.

It congratulates the mining industry of the United States upon the selection of a man pre-eminently fitted for the duties of the office, who has proved himself a friend of the industry which he will now represent in national position. It extends to Director Holmes its promise of hearty and consistent co-operation, collectively and individually, to the end that the new bureau may be speedily made as great as the industry it represents.

The Mining Congress also wishes to express its sincere appreciation of the efforts put forth by the friends of the industry in both branches of Congress. It believes, however, that the efforts of the Mining Congress should not be abated until the great industry, producing over two billion dollars a year in ordinary times, be represented by a Department of Mines and Mining with a Cabinet official at its head.

It extends to the United States Geological Survey its expression of hearty co-operation and continued loyalty and believes that the two co-ordinate branches should be conducted with the single purpose of advancing the interests of the mineral industry. It commends the patriotic efforts of the late J. W. Powell and Clarence King and of Dr. C. D. Walcott and pledges its continued support and endorsement so long as the Geological Survey adheres to the non-political purpose for which it was created and maintains the traditions of its great history of practical accomplishment for the science of economic geology, handed down by these three distinguished men.

THE CHAIRMAN: It will be referred to the Committee on Resolutions.

MR. DAY: I move the rules be suspended and the resolutions be adopted.

MR. DORSEY: Mr. Chairman. I would second the motion.

MR. DAY: We have a resolution here which is agreeable to the entire assembly. It should be unanimously passed, and I join most

heartily in the request that this resolution be put upon its passage at the present time.

Motion put and carried.

MR. DORSEY: Now, I move the adoption of the resolution just read. We have simply suspended the rules.

Motion seconded, put and carried.

The secretary then read resolutions No. 20, No. 21 and No. 22, which were referred to the Committee on Resolutions.

Resolution No. 20.

(By E. A. Montgomery.)

Whereas, Numbers of men engaged in metal mining are likewise financially interested in oil production, and

Whereas, The miners of metalliferous ores are in entire sympathy with oil producers, and precisely similar conditions are to be found in lands underneath which are precious metals and oils, and

Whereas, The present mineral land laws are, in many instances, totally inadequate to safeguard the rights of bona fide locators and miners of oil and metals, and it is proposed by interested parties to enact so-called conservation laws which may further imperil already established interests and retard the development of rich mineral territory,

Now, Therefore, Be It Resolved:

1. That we express our sympathy with the miners of oil, and tender them our hearty co-operation in any effort to bring about the enactment of laws which shall safeguard their rights and advance the interests of their business.

2. That, believing there are many miners of precious metals not now interested in oil development, who, nevertheless, desire to make investments in oil, we request the reciprocal assistance of the oil men in our efforts to prevent detrimental legislation and to secure such legislation as the conditions of the mining industry indicate are imperatively necessary. We further declare that, in our judgment, it is impossible to separate the interests of oil miners and metal miners in the field of legislation, and that because of the necessary unity of interests we should join forces and work according to some agreed plan of operation.

Resolution No. 21.

(Introduced by Edward H. Benjamin of San Francisco.)

Whereas, It is proposed to hold at some suitable place in the United States of America, during the year 1915, a great International Exposition and World's Fair, to celebrate the completion of the Panama canal, man's greatest achievement since the world began, and

Whereas, Federal recognition of the proposed International Exposition is deemed essential to the complete success of the undertaking, to the end that foreign governments may look upon it with favor, and

Whereas, San Francisco, California, by reason of its location with reference to the mining regions of the United States, is the choice of the people residing in the mining districts of America and the people of California, without asking Congressional appropriations guarantee a sum of money sufficient to build the greatest Exposition in the history of the world, and the one best calculated to foster and promote the mining industry, therefore be it.

Resolved, That the American Mining Congress recognizes San Francisco as the logical point for the International Exposition of 1915, situated as it is, upon the western shores of America, and facing the Pacific ocean, which is destined at the completion of the Panama canal to become the theatre of the world's greatest activity. And be it further

Resolved, That the American Mining Congress heartily endorses the claims of California to federal recognition, and requests the Congress of the United States to grant the same against all other claims.

Resolution No. 22.

(Introduced by Horatio A. Foster.)

Whereas, the development of mines and mining in the Rocky Mountain states is largely dependent upon the use of electricity from water power, and

Whereas, There is a large amount of undeveloped water power now running to waste on the public domain in these states because in the state of the present laws, conditions surrounding its development are too uncertain to invite such development, and

Whereas, All water power that is not utilized is wasted and forever lost to humanity, resulting in the premature exhaustion of our coal and oil fields, and the use of timber for fuel, be it therefore

Resolved, That it is the sense of this convention that laws must be immediately enacted which shall definitely and accurately define the terms and tenure of leases, the right to utilize stream water for the purpose of generating electric power, and be it also

Resolved, That such rentals shall be fixed at a rate which shall permit the lessee to compete on an equitable basis with those engaged in supplying other forms of heat, power and light; be it likewise

Resolved, That the tenure of such leases of water rights shall be of sufficient length to enable those who engage in their development and diversion to the uses of mankind to secure a reasonable return and earning upon the vast sums of money necessary for Hydro-electric construction, and that such term should in the opinion of this convention be fixed at the minimum of sixty years and in order that the water sheds shall not be denuded by fire or the reckless cutting of timber, be it further

Resolved, That all sums collected from the rentals of water rights for power purposes shall be expended for the protection of the forest reserve within the state where such collection is made.

THE CHAIRMAN: The Congress has completed its work for this afternoon, and will now take a recess, according to the program, until eight o'clock when it will meet at the Chamber of Commerce reception. I hope that every member and delegate will be present.

TUESDAY EVENING, SEPTEMBER 27, 1910.

Chamber of Commerce Reception.

At eight o'clock the Congress assembled at the Chamber of Commerce where a reception was tendered by that organization to the Officers and Directors of the Congress, and the members, delegates and visiting ladies.

A short speech of welcome was made by President Joseph Scott of the Chamber of Commerce, who was followed by President Buckley of the Mining Congress, Dr. J. A. Holmes of the United States Bureau of Mines, and Dr. R. W. Brock, Acting Minister of Mines of Canada.

No business matters of any kind were considered, the evening being given over entirely to entertainment.

President Buckley announced that the Congress would again assemble in Convention Hall on Wednesday morning, September 28, at ten o'clock.

WEDNESDAY, SEPTEMBER 28, 1910.

Morning Session.

THE PRESIDENT: The Congress will please be in order. We will first listen to announcements by the secretary.

The secretary then read a telegram from the Coalinga Chamber of Commerce embodying a resolution of that body, which was referred to the Committee on Resolutions, as follows:

Coalinga, Calif., Sept. 27.

President American Mining Congress, Los Angeles, Calif.

Following is resolution adopted today at meeting of Coalinga Chamber of Commerce:

Whereas, The matter relating to California government oil lands is in a complicated condition, and

Whereas, California oil men are struggling for a way out of the complicated situation and it is deemed best for their interests that they be permitted to work out of the said complicated situation themselves, now therefore be it

Resolved, That it is the sense of this meeting of the Coalinga Chamber of Commerce that the American Mining Congress now in session in Los Angeles be asked to take no action on the said oil situation by resolution or otherwise and further that a copy of this resolution be telegraphed to the president of said Mining Congress at once.

H. P. JAYNE, Sec'y.

Also communication in poetry to the Congress, from Jack Crawford, the poet scout; as follows:

Cheyenne, Wyo., Sept. 27th.

The President, Mining Congress,
Los Angeles, California.

A greeting from the iron trail,
A broncho's love and blessing,
May peace and harmony prevail,
And sunny beams caressing;
May wisdom mark your every act,
With glory's flag unfurled,
And may the Congress prove in fact,
A blessing to the world.

Your poet Laureate,
CAPT. JACK CRAWFORD.

The secretary further announced a reception to the visiting ladies. to be given by the ladies of the Sierra Madre Club, and also the reception to be given the president this evening, to be followed by an address by Dr. Holmes. Also reception to be given by Mrs. Grant G. Gillette, 43 Westmoreland Place. Also a smoking concert to be given under the direction of Mr. Dick Ferris upon the roof of the Hamburger building, said concert to be under the auspices of the Sierra Madre Club.

A resolution was then introduced by Mr. B. L. Worthen, of Tucson, Arizona, which resolution was read and referred to the Committee on Resolutions, as No. 23.

Resolution No. 23.

(Offered by B. L. Worthen, of Tucson, Arizona.)

Be It Resolved, That the American Mining Congress in behalf of the welfare of the underground miner and the betterment of general mining conditions, use their efforts to bring to the attention of the

Bureau of Mines the necessity of having Congress pass laws to better safeguard the lives of miners.

And, Whereas, It is now known that the dread plague miner's Phthisis is becoming more prevalent among the miners, and to the extent which would, even to the miner be alarming if reliable statistics were compiled,

And, Whereas, One of the principal causes of Miner's Phthisis is known to have its source from the inhalation of dust particles made while drilling dry holes for mining.

And, Whereas, It is known that other countries have legislated and passed laws to the effect that mechanical devices have been introduced into the drilling methods, which to a great extent has eliminated the dust, thereby safeguarding the health of the miners.

Now, Therefore, Be it the sense of this Congress that steps be taken to see that laws are passed which will cause both the employer and employee to consider the danger and devise means to safeguard the lives of humankind.

A resolution was then introduced by A. K. Wright, of Searchlight, Nevada, which resolution was read and referred to the Committee on Resolutions, as No. 24.

Resolution No. 24.

(Offered by A. K. Wright, of Nevada.)

Resolved, That this Congress believes that the best interests of all the people will be conserved by state regulation and control of all natural resources within the boundaries of each and every state, in the very largest measure compatible with present federal statutes.

Resolved, That it is the sense of this Congress that the proposed system of leasing mineral lands for mining purposes will prove detrimental to the metal mining industries, and that prospectors and miners should have the right to acquire title by purchase and patent, now and always.

A resolution was then introduced by F. H. Mitchell, of Arizona, which was also read and referred to the Committee on Resolutions as No. 25.

Resolution No. 25.

(Offered by F. H. Mitchell, of Arizona.)

Resolved, That any conservation policy which places obstacles or restrictions in the way of the free and unrestricted prospecting and location of metalliferous mineral lands, or which favors any lease or royalty upon the future tenure and production of such locations, is inimical to the development of our country's resources, represents a step backward, and strikes directly at the welfare and prosperity of the entire mining industry.

Resolved Further, That we endorse the work of the Forest Service in its efforts to preserve and maintain a rational consumption of the nation's timber resources, but we are unqualifiedly opposed to any and all withdrawals of metalliferous mineral lands from public entry, and to any legislation which will in any way interfere with the free prospecting location or production from future-discovered and located mining claims.

THE PRESIDENT: If there are no further resolutions we will proceed to the regular order of business. The next in order is the report of the Committee on Revision of Mineral Land Laws, by Mr. Will L. Clark, of Jerome, Arizona.

A DELEGATE: Mr. President, we have a delegate from Washington here, and there is no representative on the Resolutions Committee from that state, and I suggest that he be made a member of that committee.

THE PRESIDENT: I wish to say that the gentleman from Washington may become a member of that committee by presenting his name to the secretary at any time. Nothing else is necessary.

The report of the Committee on General Revision of Mineral Land Laws was then read as follows:

REPORT OF THE COMMITTEE ON GENERAL REVISION OF MINERAL LAND LAWS.

To the President and Members of the American Mining Congress, Thirteenth Annual Session, Los Angeles, California:

Your committee on General Revision of the Mineral Land Laws submits its report as follows:

The feeling is universal among those interested in the mining industry of the United States, that it is imperative there should be a general revision of the mineral land laws. There has been no general revision since the Act of 1872.

On June 13, 1910, your committee sent the following message to Secretary Callbreath, who was then at Washington, D. C., engaged in the work incident to the passage of the Bureau of Mines enactment. "The committee recommends that our president ask Congress to undertake promptly a general revision of the mineral land laws, which, in view of the difficult problems presented, should be in co-operation with the mining industry. The plan adopted for this co-operation should give all sections opportunity for public hearing and discussion of remedies. Mining Congress will help suggest a practicable plan later on, if desired.

“(Signed) EDMUND B. KIRBY, Chairman.”

It was hoped to secure favorable action by Congress then. This, however, was impossible as the remaining time of that session was too short, and your committee continues to believe and now reports again recommending, that we appeal to the Congress of the United States to undertake promptly a general revision of the mineral land laws. It is particularly timely now when relief is so needed and strongly being urged by all the mining communities and classes of mining, including the oil industry, and so many new factors have been, or are to be, introduced, including the so-called "Conservation Measures," that the Congress of the United States should be informed and strongly urged to proceed with the general revision of the entire mineral land laws.

The Reasons for Such Needed Revision.

They are so imperative and well understood in mining communities affected, that we will not burden this report with any detailed statement thereof, but as was stated in part in the excellent report of the Committee on Vertical Side Line Law, submitted to the Twelfth Annual Session of the American Mining Congress, it is well to refer to the early chapters of our mining history, which practically commenced with the first gold discoveries in California, when this state had just ceased to be Mexican territory, and to remember the great immigration into this favored section; the absence of any mining statutes applying, and the adoption by the miners of rules governing mining rights; the marked similarity in the rules of the mining West, all of them recognizing discovery, followed by appropriation, as the foundation of the possessor's title, and development by working as a condition of its retention; the sanctity of law given to these rules; the discovery in 1860 of the great Comstock lode, the development thereof; and the disputes and endless litigation arising out of vagueness of rights and the uncertainties of title.

The Federal Mining Act of 1866.—Its Importance.

The early Western miners occupied lands that were unsurveyed and had not been opened to settlement. Strictly speaking, these miners

were trespassing upon the public domain, and continued so until the enactment of the federal "Lode and Water Law" of July 26, 1866, by which the rights which had been acquired under local rules were recognized and confirmed, and the principle laid down that all mineral lands of the public domain should be free and open to exploration and occupation, and that titles to certain classes of mineral deposits or lands containing them would be granted. This act was accepted as a step in the right direction, although its details were faulty and crude. It was replaced by the act of May 10th, 1872, the essential features of which are contained in the Revised Statutes substantially as they exist today, and with which we are principally concerned.

In spite of the good intentions of the makers of these early acts, the fact remains that our mineral land laws are imperfect and obsolete and not sufficient for our present conditions and that many of the existing provisions tend to unsettle rights to discovery, to discourage investments and to retard developments of latent resources. And in spite of the many interpretations of the courts, the numerous volumes of "Mining Law" that have been written, the millions of dollars that have been spent in litigation, and efforts to adjust new conditions to these laws, cases are continually arising for adjudication. Every active mining community has its share thereof. Judge Lindley, to whom special acknowledgement is due for his admirable treatise on American law in relation to mines, prefixes his text in Volume 1 with a table of adjudicated cases, some 2,000 in number. These are leading cases. Other suits in the lower courts, wherein no new questions of mining law have been raised, have been so numerous as to preclude computation. Time and space do not permit any recital of these disputes. They are matters of common knowledge. Neither is it necessary now to discourse on the inadequacies of the present mining laws, for there have been extended printed articles concerning this and special acknowledgement is due Dr. Rossiter W. Raymond, secretary of the American Institute of Mining Engineers, for his printed expositions of the need of the revision of the existing mining laws.

The great bone of contention has been the extralateral right. It has, however, been found so difficult to make adjustments of the extralateral right whenever extensive and deep mining operations have been prosecuted, that settlements out of court have been the only way of determining such conflicts. Nearly every consolidated group of mining claims is an example of this sort of prudence, but where purchases or consolidation could not be effected, the owners of adjoining mines have executed agreements and releases whereby verticle plane boundaries following some compromise line, have been agreed upon as limiting the rights of both parties. Agreements of this kind have been made by the owners of many of the large mining groups of the West. It has been suggested that this attitude of the mining men whose interests are most vitally affected, is the final argument against the value and importance of the extralateral right.

Other Evils.

In the judgment of your committee, the evils arising out of the direct application of the extralateral rights are possibly of less importance than the secondary evils. In one way and another the present laws are so loaded down with cumbersome provisions that it is almost out of the question for the poor claim owner to proceed with an adjudication of adverse conflicts through the courts. The final result in every active mining district is a tangled group of conflicting locations; and unfortunately it is not only the claim owners who are thus injuriously directly affected but this involves the class of men who would invest in mining enterprises, but are deterred from doing so by uncertainties of title and fear of litigation.

Regarding Location and Discovery, Also the Laws Regarding the Performance of Annual Labor.

Everyone interested in this subject recognizes that starting from the very first necessity of acquiring a mining claim, the present law regarding discovery is obsolete and needs immediate revision. A clear, definite and practical procedure for acquiring rights to those mineral, both metalliferous and oil bearing claims, on which, from the nature of the deposit, discovery must be long deferred.

The question of tunnel rights, and the uncertainties of title arising thereunder.

The location of an unlimited number of claims by one person.

The abandonment and re-location by the same locator.

Location by proxy.

The uncertainties of placer locations and grouping thereof under the present laws.

The conflicts between placer and lode locations under the present laws.

The foregoing are only a small number of the vexations and uncertainties that now exist in our mining laws.

At every session of the American Mining Congress the prevailing dissatisfaction has found expression in various resolutions asking for the correction of the existing laws. Such resolutions have been resultless for the reason that the Congress of the United States has not acted upon them.

In the second place we believe that one of the main reasons for this failure is that the laws are so interdependent that it is difficult and in most cases impossible to correct one fault, without affecting the entire code.

We therefore strongly urge that the idea of patch work revision must be abandoned, and as stated before, with many new measures now pending or to be proposed it is clearly of the utmost importance that a general revision should be undertaken. As the problems involved are particularly difficult, a revised code should be the result of the most experienced judgment and a full discussion by the mining communities and a careful consideration of the question and it is certain that the National Congress will welcome the active co-operation of the mining and oil men of the country, in the suggestions of practicable revisions. The national Congress must first assent to the general proposition and agree to undertake a general revision with the co-operation of the mining industry. And as to the details of the plan to bring this about your committee is of the opinion that this can and should properly be left to the National Congress. It is with the understanding that the American Mining Congress is ready at all times to give whatever assistance may be desired. It is suggested, however, that the vital importance of the subject and immediate necessity of the quickest possible action by the National Congress may be expedited by the creation and appointment of a National Commission to prepare such revision. In the event of the adoption of such suggestion it is manifest that a sufficient appropriation should be granted for the needs of the commission to quickly gather and consider adequate data and information.

We further recommend that the president and other officers of the American Mining Congress, and each member and delegate thereof, exercise direct and diligent effort to secure the prompt attention and favorable action of the National Congress accordingly; and

That a copy of this report and resolution adopted be placed through the various state representatives of this Congress in the hands of the governor and the senators and representatives of Congress of every mining state and territory, with endeavor to enlist their active support.

That a committee on revision of the mineral land laws be again appointed by the president of this Congress, consisting of one member

from each mining state or territory, represented by membership in this congress.

That the chairman of this committee should receive from each state committeeman a monthly report of the progress of this work, containing advice as to what action their various representatives in Congress are taking, and report such findings to the secretary of the American Mining Congress at headquarters, Denver, Colorado.

Respectfully submitted,

E. B. KIRBY, Chairman.

WILL L. CLARK, Acting Chairman.

F. G. TYRRELL.

W. H. DICKSON.

M. BAUMGARTNER.

Committee.

THE PRESIDENT: What is your pleasure with the report of this committee?

MR. GIBBONS, of Nevada: I move the report be received and filed.

THE PRESIDENT: And that the resolution be referred to the Committee on Resolutions.

Said motion was seconded and duly carried.

THE PRESIDENT: We will listen to the report of the Chairman of the Resolutions Committee.

MR. GEORGE W. E. DORSEY: The Committee on Resolutions are now considering all resolutions referring to conservation. We meet in Parlor A of the Alexandria hotel at 1:30, and we ask all gentlemen who have introduced resolutions here regarding conservation to appear before the committee if they so desire, during the session this afternoon and this evening, and all gentlemen who are members of the Congress who wish to introduce any resolution regarding conservation—we ask that they present such resolutions this morning, so that they can be referred to the committee and considered tomorrow morning at 10 o'clock as I will report to the Congress the findings of the Committee on Resolutions regarding conservation, that they may be discussed, as that hour has been named for the general discussion. We offer a substitute for Resolution No. 21, which we ask the secretary to read.

Said substitute for Resolution No. 21 was then read by the secretary, as follows:

Substitute for Resolution No. 21.

(For original Resolution No. 21, see page 52.)

Whereas, It is proposed to hold at some suitable place in the United States of America, during the year 1915, a great International Exposition and World's Fair, to celebrate the completion of the Panama canal, man's greatest achievement since the world began, and

Whereas, Federal recognition of the proposed International Exposition is deemed essential to the complete success of the undertaking, to the end that foreign governments may look upon it with favor, and

Whereas, San Francisco, California, by reason of its location with reference to the mining regions of the United States, is the choice of the people residing in the mining districts of America and the people of California without asking congressional appropriations, guarantee a sum of money sufficient to build the greatest exposition in the history of the world, and the one best calculated to foster and promote the mining industry, therefore be it

Resolved, That it is the sense of the American Mining Congress, in meeting assembled, that the holding of an International Exposition in

1915 on the Pacific coast will be of great importance to the mining industry of the United States, and therefore heartily indorses the claims of the state of California for federal recognition and asks that such laws be enacted as will recognize San Francisco as the logical point for holding said International Exposition.

MR. DORSEY: On the part of the Committee on Resolutions, Mr. Chairman, I move the adoption of the substitute.

Said motion was duly seconded.

THE PRESIDENT: It has been moved and seconded that the report of the committee on the substitute be adopted. Any remarks?

MR. SAMPSON: Mr. President, I am most heartily in favor of that resolution. I am contributing a little myself to the end of making that a success, but I wish to raise this question: Is it not well now to have it understood that all resolutions be adopted by this convention with the announcement made in advance that at a certain time such resolutions will be taken up for discussion? Now, there is a very small number of the members present here this morning, and we are united upon this proposition; but if we let down the bars now, it will be easy to do so with anything else that is to come up. Should not there be some specified time named when all resolutions will be taken up, so that all can be present, or if they are absent, it is their own fault?

MR. DORSEY: I will say to my friend General Sampson that it was for that reason that I just gave notice in regard to the resolutions on conservation, as to the time when those resolutions would be considered at the meeting of the Resolutions Committee, so that when they are considered every gentleman interested might be present. If they neglect to appear, it is their own fault. As chairman of the Committee on Resolutions, I must report at such times as I can get the work in. As the general well knows, the Committee on Resolutions is a hard-worked committee, and we are in session continuously, and I must report when I can.

MR. SAMPSON: With that understanding, I am willing that the vote should be had on this now.

THE PRESIDENT: The motion is made and seconded that the report of the committee on the substitute be adopted. Those in favor will signify by saying aye.

Said motion was duly carried.

THE PRESIDENT: I wish to say for the benefit of those who are not here, as well as for the benefit of those who are here, that this Congress will have a great many resolutions before the body during the next two days, and it is the duty of every member and every delegate interested in any of these resolutions, no matter what they are, to be present at these meetings. It is also their duty to appear before the Resolutions Committee and to be heard upon those resolutions, and to know for themselves when those resolutions are to be reported out of the committee. They can very easily ascertain when the resolutions are to be reported out if they are sufficiently interested to appear before the committee.

MR. DORSEY: Mr. President, I am authorized by the Committee on Resolutions to report on Resolution No. 17 with a favorable recommendation. I will ask the secretary to read.

Resolution 17 read by the secretary.

MR. DORSEY: I move the adoption of the resolution.

MR. SAMPSON: I second it.

THE PRESIDENT: The motion is made and seconded that the resolution as reported be adopted. I would like to ask Mr. Becker a question. I would like to know what is the probable estimate of the cost of such investigation by the American Mining Congress.

MR. BECKER—Mr. President, the resolution does not go as far as that. My only wish in bringing this matter up was that it might be discussed, as I hope I shall have an opportunity to address the Congress in reference to it.

THE PRESIDENT: May I, with the approval of the chairman of the Resolutions Committee, request Mr. Becker at this time, as a part of the discussion upon this resolution, to present his paper or address before this Congress.

MR. DORSEY: It is perfectly satisfactory.

THE PRESIDENT: If there is no objection on the part of the members here, I would request Mr. Becker at this time to deliver his address upon this subject to the members of the Congress, after which we will act upon the resolution.

MR. TRACY C. BECKER, of California: Mr. President and Gentlemen of the Mining Congress: I thank you very much for the courtesy you have accorded to me and I will repay it by being very brief indeed, notwithstanding the fact that I am a lawyer as well as a mine owner, although the latter on a small scale.

Some time ago my attention was directed to the matter of rates for transporting ore, and I had occasion to examine the schedules of rates fixed by the various railroads in this country, particularly along the Pacific coast, for carrying ore. I found what the resolution states to be the fact, that although the risk in carrying ore which carries reasonably high values is not at all greater, and the expense of carrying it is not at all greater, the charge is proportioned, not to the cost of transportation, not to a reasonable earning for the railroads, which will pay their fixed charges and dividends on a reasonable valuation of their property, but it is based on what the railroad men openly admit what they think the traffic will bear. It differs very greatly from any other class or kind of freight except freight which is classified with reference to its perishable quality. Furthermore, while there is some slight attention paid to the long and short haul element that enters into these matters, that does not receive attention and is not regarded as having a controlling weight or force in determining the rates to be charged. As I said before, the only criterion is, what will the traffic bear? How much can the man that ships the ore afford to pay, out of what the kindly smelter leaves him, at the end of the route? Now, it seemed to me that that was an anomaly in transportation rates, and one that had been simply tolerated, although intolerable in some instances, because there was no remedy, or none that was available.

The Interstate Commerce Commission law was amended at the last session of Congress after much toil and turmoil and tribulation, and is in quite a different form from the form in which it was presented by its original sponsors, but it has at last, thank God, been amended and fixed so that in this country a strong, efficient and capable Interstate Commerce Commission statute is in force, with a good Commission to execute it. We had an example of these rates on the Pacific coast in the case of the citrus fruit rates. When the tariff on citrus fruits was raised, the railroad companies at once fixed their rates at just the exact amount in cents that the tariff fixed the rate on the importation of like products. Now, Gentlemen of the Mining Congress, eternal vigilance is the price of liberty and happiness, and one of the things that prompted me to offer this resolution here was that principle. You cannot tell when, with the varying impulses that the railroad corporations will have to make up for the decreases in their rates in other respects, and the threatened refusal of the Interstate Commerce Commission to consent

to the increase of rates that they have attempted to make, the testimony in regard to which is now being heard by the commission at St. Paul and Chicago, I believe—there is no telling when, in order to make up for that, they may not, on the principle of asking all the traffic will bear, push over an advanced rate onto the mine owners and shippers of ore bearing rock and concentrates. So, it seemed to me a wise proposition at least to present a resolution to this Congress, in order that we might have an opportunity to consider it, asking for the assignment of a committee to investigate this question. Not necessarily to make a test case and bring it before the Interstate Commerce Commission, because that committee may decide on investigation that that is not necessary or proper; not necessarily to go to any cost or expense, because I think you can safely trust such a conservative committee as the one which the chair will appoint, to be cautious in the matter of expense; and at least you will have a committee who can investigate this important question, and protect the mine owners of this country, represented by you, against any advance in rates, if they do not succeed in securing a reduction. The state of Nevada two years ago passed a law creating a railroad commission, and giving it the power to fix certain rates. A maximum rate scale was fixed in the statute, varying to a certain extent with the value of the shipment. Immediately the railroads got up a test case and went before the United States Circuit court, presided over by His Honor Edward S. Farrington, United States District Judge for the district of Nevada, and made a valiant fight, producing their experts from all over the country against this bill, claiming that it was confiscatory. Judge Farrington considered the various forms of testimony that were offered and received at great length. His opinion is reported in the Federal Reporters. He reached the conclusion that, with the single exception of one, the Short Line railroad, in which case perhaps the rates were a little too low, the maximum rates fixed by the statute were not open to attack as being unconstitutional, contrary to the life, liberty and property clause of the United States constitution, and were not confiscatory, and that even at the maximum rates, or even lower rates than the maximum rates, which might thereafter be fixed by the commission, they afforded a reasonable profit to the railroads for the work done, proportioned, not on the theory of what the traffic will bear, but proportioned upon the rule of a just and fair compensation for services rendered, and affording a fair return for the money invested and the cost of operation.

Now, gentlemen, I have said about all I have to say, except that with reference to this Nevada law at the session last year the maximum clause was repealed, leaving it entirely in the discretion of the commission to fix rates. They have not yet acted, because, as stated in a letter which I received this morning from the commission, the intra-state shipments, that is, the shipments within the borders of the state of Nevada, are comparatively small, and do not amount to much, the principal shipments of course being from various points in Nevada to the smelters in California and Utah, and it is not a question for the State Railroad Commission to fix such rates, but for the Interstate Commerce Commission of the United States. Now, there is little that I can add to what has been said. It is an important proposition, whether or not, it is worth while at this time to commit this subject to a committee for investigation. It has seemed to me that it was, and it seemed to me that a committee, which could merely investigate, without going any further than simply getting the information, would be unnecessarily and improperly delimited in its powers, so that its action would not be effective. I thank you, Mr. President and gentlemen, for the courtesy of your attention. (Applause.)

THE PRESIDENT: The motion is on the adoption of the report of the committee. Any remarks?

MR. EVANS, of Utah: Mr. President and Gentlemen of the Congress: I have no doubt that this is a proper subject for investigation.

Neither have I any doubt that the railroad companies have abused the question of freight rates in the way of putting different valuations upon different classes of ore. The only question in my mind is this, as to whether this congress should set the precedent of referring a matter of this kind to a committee with power to expend money in its investigation. As I understand this resolution, not only is there a committee to be appointed, but it is empowered to appropriate money for this investigation and hire lawyers. Isn't that the fact, Mr. President?

THE PRESIDENT: That is the purport of the resolution.

MR. EVANS: Are there any precedents along those lines?

THE PRESIDENT: I can say for the information of the gentleman, that all expenditures of money, whether by committee or otherwise, must be approved by the Executive Committee and the Auditing Committee; and no matter what resolution may be passed by this Congress, no moneys will be expended except upon authorization of the Executive Committee.

MR. THOMPSON, of California: Mr. President, I am very heartily in favor of this resolution, and perhaps I may be able to give a little light on the subject from an experience that I have recently had in Mexico. The Mexican government, with rare wisdom, provided in the granting of charters for the construction of railways the very thing which we are fighting for; that is to say, that no man should be charged any more, whether he shipped one carload or a thousand, than another man, and that the absolute control of rates, so far as was necessary, in case of an arbitrary charge, be provided for in the charter; so that in that particular the Mexican government could teach us a little something. I was shipping ore from a station not far from Torreon, and they were charging us \$2.80 a ton. The law provides, as I have stated, that no man should be charged more than his neighbor. I found that the American Smelting and Refining company was shipping ore over the same road, the same distance, for 60 cents a ton. I happened to know the manager of the railway very well, meeting him at the club, and I said to him, "I want to have an appointment with you when I can meet you in your office. You had better get your shotgun ready, because it is going to be a warfare proposition." He said, "All right, I will meet you at 2 o'clock." So I went up there, and I didn't ask him whether it was true, but I made the statement that they were shipping ore for the American Smelting and Refining company at 60 cents a ton, whereas I was called upon to pay \$2.80, and that could not be done under the law. Well, he said that was a special rate made for the benefit of those people on some very low grade ore. I asked him what was the value of the ore and he said not to exceed \$30 a ton. I said, "Then why do I have to pay \$2.80?" He said, "Because your ore is much higher grade." I said, "Then I am called upon to pay this excessive charge for insurance—is that it?" He said, "Well, it is practically so." I said, "I am willing to risk our ore at \$30, and if you lose a car of ore, all you will have to pay me will be \$30 a ton, and then I want that 60 cent rate." And we got it. Now, in shipping ore in this country you will be absolutely turned down upon that same proposition; the railroads would not consent to reducing the rate on your releasing them from liability. They would still insist upon charging the other rate, because they would take the ore and have it assayed themselves, and fix the charge upon the value of the ore, charging all that the traffic would bear. The Southern Pacific road, as most of us know, had bulletins that they had posted in their stations, ore of a value of a certain amount, so much a ton, and a certain other amount so much a ton, and so on. Now, that was an absolute publication of their rate here. My opposition to it is that it is eminently unfair, and without any return rendered for it. I thank you. (Applause.)

MR. WRIGHT, of Nevada: Mr. Chairman, it seems to me that this matter might be taken up by this committee with the Interstate

Commerce Commission, whose duty it is to look after this very question of rates.

THE PRESIDENT: I will say that the purport of this resolution is that it shall be taken up with the Interstate Commerce Commission by the committee.

MR. WRIGHT: It will save this convention expense.

THE PRESIDENT: That is the import of the resolution.

MR. EVANS: You authorize the committee to employ counsel?

THE PRESIDENT: It authorizes the committee to employ counsel and carry on an investigation, so that the information which is given to the Interstate Commerce Commission will be authentic and be adequate to meet the situation.

MR. DORSEY: But no expense will be incurred unless authorized by the Finance Committee of this Congress.

THE PRESIDENT: I might state as a general proposition, for the benefit of the members and delegates at this time, that the American Mining Congress is an incorporated body, and that the business of the Congress is conducted by the membership, and the membership has a board of directors which controls the business of the Congress, and no expenditure of money or appropriation of money, nor any collection of money, can be had without the sanction and action of the board of directors of the legally incorporated body, the American Mining Congress.

MR. EVANS: I understand that, but as I understand it now this is a committee which asks for authority from this Congress to employ lawyers and incur expense. Now, while it may not be a legal charge or liability upon the organization or corporation, yet as a matter of honor, if we authorize it we ought to pay it. I would like to have that read again on that point.

MR. BECKER: How would it be, to meet any objections that might be raised in that behalf, to add a specific clause by amendment, which I now do with the consent of the chairman of the Committee on Resolutions, that no expense shall be created by this committee without the approval and warrant of the board of directors of the Mining Congress. I wish to offer that.

Said motion was duly seconded.

MR. DORSEY: Mr. Chairman and Gentlemen, this is entirely unnecessary. This is simply a recommendation to the body of the Congress, and it will be up to them to say whether they shall incur any expense or not. If they do not wish to employ an attorney or to expend any money to collect this information, they will not do so. I can assure you that it is not likely there will be a dollar of expense incurred.

THE PRESIDENT: The amendment is made and seconded that the resolution be so amended as to read that no expense shall be created by this committee without the approval and warrant of the board of directors of the American Mining Congress. Are you ready for the question? All in favor of the amendment signify by saying aye.

Said motion was unanimously carried.

THE PRESIDENT: The motion is now upon the resolution as amended. All those in favor of the resolution as amended will signify by saying aye.

Said motion was unanimously carried.

Resolution No. 17, as amended and adopted, will be found on page 179.

THE PRESIDENT: The next address on the program for this morning is by a gentleman who is not present, Hon. Frank Mondell, Congressman from Wyoming. We have a communication from Congressman Mondell which the secretary will read at this time.

The secretary then read the communication from Mr. Mondell, which will be found on page 289 of this report.

THE PRESIDENT: The next address on the program is by Mr. C. C. Jones, of Los Angeles, California, on "Iron Ores of the Southwest."

Mr. Jones' address will be found on page 265 of this report.

THE PRESIDENT: Is there any other business to come before this session?

MR. THOMPSON: I was going to suggest that it might be well to extend our thanks to Mr. Mondell for his very nice letter, which is instructive as well.

THE PRESIDENT: A motion to that effect is in order.

MR. THOMPSON: I move that the secretary be instructed to send the thanks of this organization to Mr. Mondell for his able letter.

Said motion was duly seconded and put, and unanimously carried.

THE PRESIDENT: If there is no further business we will adjourn until 2 o'clock this afternoon.

WEDNESDAY, SEPTEMBER 28, 1910.

Afternoon Session.

THE PRESIDENT: The Congress will please come to order. Are there any resolutions to be introduced at this time?

SECRETARY NORMAN: The California delegation met at noon at the Alexandria hotel, and elected Mr. T. A. O'Donnell president, and myself secretary of that delegation. The following resolution for submission to this Congress was unanimously adopted:

Said resolution was then read and referred to the Committee on Resolutions, being No. 26, as follows:

Resolution No. 26.

This Congress recognizes that the United States government, in its dealings with the mineral lands, and the miners operating thereon, has uniformly treated the subject along broad and equitable lines, and that those who, pursuant to the invitation of the government, have explored the mineral lands, discovered mineral therein and in good faith developed the same, have almost uniformly been protected in their rights.

In this connection attention is called to certain recent rulings of the Land Department, that are inconsistent with the previous rulings of the department, and the decisions of the courts, under which recent rulings associations of persons who have entered upon oil and other mineral lands in good faith, explored and developed the same and discovered oil therein, have been denied patents, where prior to discovery and frequently for the purpose of raising money for development purposes certain of the locators had conveyed their interests so that there were at the time of discovery less than eight locators interested in such claim.

Previous to these recent rulings, it had been uniformly held by the courts and by the department, where the laws had been complied with, and mineral or oil discovered, that such locators or their successor or successors in interest, were entitled to patents.

These recent rulings, if adhered to, would destroy many investments made in good faith, impair mining titles, and destroy the confidence of investors in such titles. We therefore urge immediate legislative and departmental action to the end that all such property rights shall be protected, and where through bona fide locators and not dummies and in accordance with the previously established customs of the miners, the previous rulings of the department, and the decisions of the courts, the titles to such claims are honestly vested, the patents shall be issued therefor without denial or delay.

THE PRESIDENT: Any reports of committees? The first address this afternoon is entitled "Railroads and Mining Development," by Mr. James W. Abbott, of Pioche, Nevada.

MR. ABBOTT: Mr. President, Ladies and Gentlemen: I have always found that the only way in which I could say just the things I had intended to say, and omit the things I did not wish to say, was to prepare a paper and stick to my text. It is possible that I may break out once or twice this afternoon, but I will try to stick to my text and get through briefly. I do not mean that this address shall contain nearly as many things as I have in my mind that I might like to say, if there were an unlimited time.

Mr. Abbott's address will be found on page 278 of this report.

THE PRESIDENT: I would like to inquire if Mr. H. LeRoy Boyd is in the hall. (No response.) The next address on the program is one of extreme interest. It is entitled "The Elimination of The Fake Promoter." I am sure that the gentleman who is to address you on this subject needs no introduction to a California audience. He has been introduced to a great many gentlemen who did not care to meet him, but I am sure on this occasion everyone in this hall will be very glad to listen to this address by Mr. Lewis E. Aubury, of San Francisco, California.

MR. AUBURY: Mr. President, Ladies and Gentlemen: Knowing that there were quite a number of very interesting papers to be read at the present Congress, and also that sufficient time ought to be given for the discussion of some of these, I have endeavored to make my article as brief as possible. The subject has been boiled down to the lowest possible amount of space, and I will try to give you my views as to the best method for the correction of an evil from which the whole mining and Western states have suffered greatly; that is, the mining faker or fraudulent promoter, the man who attempts to rob the widow, the orphan, and the poor people in general.

Mr. Aubury's address will be found on page 274 of this report.

THE PRESIDENT: The address by Mr. Clark Ross Mahan has been postponed until tomorrow, owing to the fact that Mr. Mahan is not able to be present today. Also the report of the Committee on the Protection of Mine Investors, by Thomas E. Kepner, will be postponed until tomorrow.

I wish to announce that the Chamber of Mines and Oils of Los Angeles have, at their building, 224 South Spring street, a very excellent exhibit of minerals and ores, and the delegates and members attending the Mining Congress are invited to go to their building, the first floor, No. 224 South Spring street, and inspect that exhibit. I am sure it is well worth your time. We expect this afternoon to close this session early to give you an opportunity to visit the Chamber of Mines and Oils for that purpose. Are there any further resolutions to be offered at this time?

MR. W. A. MENSCH, of Arizona: Mr. President, I should like to offer the following resolution, which I shall precede with a short explanatory statement so as to make the matter clear to the delegates.

It will possibly be a surprise to many of you to know that there has been incorporated in the United States, for the advancement of American progress, what is known as "The United States Agricultural and Industrial Exposition Co."

This company has been chartered to establish and hold a permanent United States National Fair, which is intended to be a truly representative agricultural and industrial exposition. It is a fact that Canada, our neighbor on the north, has had such a fair in successful operation for a number of years, and the people of that country have been greatly benefited thereby in all their industries, and especially that of mining.

It is desired by those having in charge this fair to secure the sanction of the American Mining Congress, and I therefore offer the following resolution:

Resolution No. 27.

Therefore Be It Resolved: That the American Mining Congress in session assembled at their 13th Annual Session in the City of Los Angeles, California,

Do hereby pledge their hearty co-operation to those who have in charge this permanent National Fair, realizing most fully the benefits, that will come to all our industries and especially Mining, and the products of the Pacific coast, and Middle West.

WEDNESDAY, SEPTEMBER 28, 1910.

Evening Session.

PRESIDENT BUCKLEY: I think I have a most distinguished honor tonight, and that is the privilege of introducing for the first time to the American Mining Congress the first Director of the Bureau of Mines. The Director of the Bureau of Mines really needs no introduction to the members of the American Mining Congress or, in fact, to anyone who may be engaged in the mining industry. Dr. J. A. Holmes is well known throughout this country. He is the friend of the mining man, and he has been a friend of the American Mining Congress, and we are under great obligations to Dr. Holmes for the many things he has done to contribute to the success of this organization. I take great pleasure in introducing to you this evening, Dr. J. A. Holmes of Washington, the first Director of the Bureau of Mines. (Great applause.)

DR. HOLMES: Mr. President, Ladies and Gentlemen, Members of the American Mining Congress: I did not realize until this afternoon what an ignorant body of fellows these mining engineers are. I went out with a company of them to see the tar lake, a few miles west of Los Angeles, and not one of them had ever heard the story of the tar baby and the rabbit, and therefore they could not realize how it was the rabbit would strike the baby and stick one hand, and then the other hand, and then one foot, and the other foot, and then get stuck for all time, like some people do in mining operations. (Laughter.) Therefore they could not appreciate how it was in this wonderfully interesting and strange lake located near Los Angeles, there are many animals that live today, as well as animals that lived a thousand years ago, having been buried in the same cemetery, and their remains are to be found there at the present time. For that reason I have revised the speech I was going to make, and have added certain elemental things, so as to help these gentlemen to understand something about the tar baby and the tar lake, and in order to be

clear, and to be sure that, as the work of the Bureau of Mines progresses from year to year, if I may be so fortunate as to continue my connection with it, they cannot say to me, "Yes, you said you were going to do this, and you said you were going to do that, and you said you were going to do the other thing, and you have not done any of them," I have written down the things that I am going to try to do. And so, if I may read any part of these remarks I will assure that the manuscript is not as large as it seems to be, and, as I understand from the President of the American Mining Congress, after I have finished we are to have a free for all discussion as to the things that they are going to insist the Bureau of Mines shall do.

Dr. Holmes' address will be found on page 219 of this report.

PRESIDENT BUCKLEY: I have asked Dr. Christy of the State University, the dean of the School of Mines, to make a few remarks. I have not given Prof. Christy any particular subject, nor have I given any of the men that are to follow him a particular subject, so that they are free to say anything they please to you. I have pleasure in introducing Dr. Christy. (Applause.)

Dr. Christy's address will be found on page 247 of this report.

PRESIDENT BUCKLEY: The next speaker on the program for this evening is a gentleman who has been invited especially to address you. I wish to introduce to you Dr. David T. Day of the United States Geological Survey.

DR. DAY: Mr. President, Ladies and Gentlemen: I regret very deeply that my first duty here is to differ, very seriously, in the first speech of congratulations which I can make, with all my heart, to the new director of the Bureau of Mines, but I feel that I should combat, very vigorously, what Prof. Holmes has said about Bre'r Rabbit and the tar baby. It is perfectly true that, originally, tar was used in this country for ensnaring animals, but Prof. Holmes ought to know that that time has passed, and that at the present time the people of the Pacific coast, and especially those of Los Angeles, have adopted, as a modern adhesive, honey. (Laughter.)

More than twenty years ago I came out here, and, like Bre'r Rabbit, I had one hand thoroughly stuck. I came out to study tar, that is asphalt and bituminous rock, which were then just becoming an industry here, and from which we have learned many lessons in the East. Asphalt was the great bituminous product then instead of oil. At that time I came to Los Angeles and got one hand stuck in the honey; a little later I came out again to study the quicksilver deposits from a statistical point of view, and I got the other in very deep; and later I got both feet settled here, and, in sympathy at least, forever, and I undertook the problem of teaching the gospel of by-products at the Portland Exposition. Prof. Richards and I were directed to see what unused minerals could be found in the heavy sands of your sea coast.

It is a very great gratification to learn that I have been wrong in supposing that the people of California had not come to the stage where the gospel of by-products is welcome. We have had evidence of that this afternoon in an admirable paper by Mr. Jones in which he referred to the success which has come to an electric furnace in Shasta county, California. It was interesting to have Prof. Lyon, the metallurgist of that plant, state to me that when he, as the professor of metallurgy in Leland Stanford University, was called to become the consulting expert of our little smelting plant at the Portland Exposition, he had never smelted iron, he had never seen an electric furnace smelting iron in operation, although he had smelted copper. The plans which he laid out and which were carried out by his assistants there, by which we made pig iron and converted some of it into steel enthused him, although the experiments were small. The furnace for

smelting sand to pig iron had a capacity of a ton a day. But a steel gasoline barrel was what we made our electric furnace out of. That is, the little tilting furnace by which we refined our pig iron. That gives you an idea of the size of that furnace. Nevertheless, we made somewhere about ten tons of pig iron there and converted some of it over into pretty good steel. It enthused Prof. Lyon enough to make him want to give up his professorship and go into the smelting of iron with the Nobles at Shasta, in California, and you know that they solved the question of commercial smelting.

Coming in here on the train the other morning and noting the difference between the industrial looks of things now and what they were twenty years ago and seeing the gospel of by-products, or, as called by a better, if not a particularly shorter term, diversified industries being developed from the very outskirts of your great city until you reach the center; to see, from the train, the manufacture of briquettes and various other things, as by-products from your oil, it is perfectly evident that the great energy with which you have developed this city, combined with the wonderful thrift and ability which you have displayed, will insure your future growth. Diversified industries, I believe, will have their growth in this part of the state, and we can look forward to such a development as will bring into play all of the varied smaller minerals which go to make up a complete and successful community. It is that thought, and the prospect of what may thus be accomplished that makes it a great pleasure to me to act in hearty sympathy with the Bureau of Mines in urging them to carry forward as promptly and as thoroughly and persistently as may be the development of those diversified industries in this great community. (Applause.)

PRESIDENT BUCKLEY: The last speaker of the evening is a gentleman whom all the people of Los Angeles know, who is well known in California and in the East and in New Mexico. I wish to introduce Captain Thompson, who will now say a few words to you in closing the evening exercises.

CAPTAIN THOMPSON: Ladies and Gentlemen: The custom, I think, of most of the gentlemen who preceded me has been to forward their addresses to the president about three weeks in advance. but you have kind of "got me" this time. He told me a few minutes ago that they were going to call on me for some remarks. I know that before me are a number of practical mining men, and I am going to give a little bit of history.

In about 1895 I happened to be in Spokane, having just come down from Montana, and had gone into British Columbia and acquired some interests and was beginning to operate, and from the different and varied rulings that had come out from the land office pertaining to the mining industry, we saw the necessity for what we aspired to have—a department of mines; so we started out and organized a little company, and Mr. G. B. Dennis was really the starter of it and became the first president of what we styled the Northwest Mining Association, and in 1895, if I remember correctly, we had the first banquet given in that country at the hotel Spokane, at which our friend Doctor Day, I believe, was present. One of the things we did there was to pass a resolution asking the gentlemen down at Washington, the members of the Congress of the United States, to take the matter up and see whether it could not be recognized as a department of the government, as we were second in importance to agriculture, that being first, and the mining industry, as an industry, was second in importance in the country.

Well, it has been said that in the arts the sculptor conceives an idea and he wants to image that in marble. He does not take a block of marble and go at it with his hammer and chisel, but he takes a clay which is plastic and he creates this model in clay, and if it doesn't suit him, the lines are not quite right, he mashes it up and makes it over,

and so he goes on and molds it over and over with plastic material until at last he has created the object of his ideal, and he has brought out the statue which he is going to put into perpetual marble, and he then starts to hew the stone and to bring about that perfect work of beauty which mankind admire. Now, we were only modeling a little bit of clay at that time, but it was followed throughout the country. They had another organization started up in San Francisco. Finally all these things together crystallized into what we are very proud to belong to—the American Mining Congress. Now, that showed us also that in union there was strength, because it finally took its shape in the American Mining Congress, it received support from all over the country, and the continual pounding away down in Washington did not result in getting a department of mines, to which this great industry is entitled, but it did get us a bureau of mines, and we have all been delighted to hear the first Director of the Bureau of Mines, who has read a paper to us here showing his conception of the duties that would devolve upon him as the director of that bureau. I am going to ask him to keep that; I hope it may be published so that I may have a copy to put away, because in about eight or ten years from now, and probably in three or four, I want to ask the Doctor how near his prophecies of tonight came to the truth. Why, gentlemen, the Bureau of Mines will take on a magnificent importance, that will be so far beyond what he has talked about tonight that this is only a stepping stone, and you are going to have a department of mines just as surely as this gentleman has been appointed Director of the Bureau of Mines. (Applause.)

PRESIDENT BUCKLEY: There is nothing further on the program this evening, and the Congress will now stand adjourned until ten o'clock tomorrow morning.

THURSDAY, SEPTEMBER 29, 1910.

Morning Session.

PRESIDENT BUCKLEY: The Congress will please be in order. The secretary has some announcements to make.

SECRETARY NORMAN: I have a resolution introduced by William M. Fitzhugh of Wyoming, which reads as follows:

Resolution No. 28.

(Introduced by Wm. M. Fitzhugh of Wyoming.)

Whereas, Oil lands have been classed as placers, necessitating discovery in order to perfect a location, and a large amount of time and money is generally necessary in order to establish such discovery by reason of the geological conditions pertaining to oil deposits, now

Be It Hereby Resolved, That a spirit of fair play demand that a prospector in possession prior to withdrawal and diligently prosecuting work towards discovery has established equitable rights therein and shall be permitted to perfect his location and establish his rights therein as a placer claim.

SECRETARY NORMAN: I also have a resolution presented by Thomas A. O'Donnell, chairman of the California delegation, which I will read:

Resolution No. 29.

(By the California Delegation.)

Resolved, This Congress recognizes that the United States Government, in its dealings with the mineral lands, and the miners operating thereon, has uniformly treated the subject along broad and equitable

able lines, and that those who pursuant to the invitation of the Government have explored the mineral lands, discovered mineral therein and in good faith developed the same, have almost uniformly been protected in their rights.

In this connection attention is called to certain recent rulings of the Land Department, that, while they may be proper as applied to the facts therein involved, are in other respects inconsistent with the previous rulings of the Department, and the decisions of the Court, under which recent rulings associations of persons who have entered upon oil and other mineral lands in good faith, explored and developed the same and discovered oil therein, have been denied patents, where prior to discovery and frequently for the purpose of raising money for development purposes certain of the locators had conveyed their interests so that there were at the time of discovery less than eight locators interested in such claims.

Previous to these recent rulings, it had been uniformly held by the courts and by the Department, where the laws had been complied with, and mineral or oil discovered, that such locators or their successor or successors in interest, were entitled to patents.

These recent rulings, if adhered to, would destroy many investments made in good faith, impair mining titles, and destroy the confidence of investors in such titles. We therefore urge immediate legislative and departmental action to the end that all such property rights when claimed in good faith under bona fide locations shall be protected, and where in accordance with the customs of the miners, the previous rulings of the Department, and the decisions of the Courts, the titles to such claims are honestly vested, the patents shall be issued therefor without denial or delay.

In connection with the location and development of oil mining lands with relation to future locations, and in order to meet the conditions prevailing in the oil districts, an amendment to the Statute ought to be adopted to the effect that upon entry, the marking of the boundaries and the posting of the notice, the locator should have a reasonable time, within which to prepare for and commence drilling upon the location, and thereafter so long as drilling and operations were diligently continued, should be protected in their occupation and possession, and upon discovery of oil to make entry and acquire patent as in other cases.

And, Whereas, It is well known that the continued pumping of oil from any given tract of land has the effect to drain out the oil from adjacent land, and in almost all instances, the remaining lands of the Government supposed to contain oil are situated in the vicinity of railroad lands or other privately owned lands, which are or will be developed and worked; therefore, the policy of the Government should be not to withdraw such lands from mineral entry or otherwise discourage their exploration or development, but to keep such lands free and open to entry, disposition and development equally with other lands subject to disposition under the mineral law.

SECRETARY NORMAN: I also have a resolution offered by Mr. Thomas A. O'Donnell, as follows:

Resolution No. 30.

(By T. A. O'Donnell.)

Whereas, The Southern Pacific Railroad Company claims and holds many thousand acres of land in the State of California which are proved oil lands, and have been appraised at more than fifty millions of dollars in value by experts of that company, and

Whereas, These lands are held under an act of the Congress of the United States granting certain land to the Southern Pacific Railroad Company and specifically excepting from its operation all mineral lands excepting iron and coal lands, and

Whereas, The patent issued by the U. S. Government to the Southern Pacific Railroad Company under which the said Company claims and holds these lands, contains an exception in the following words:

"Yet excluding and excepting all mineral lands, should any such be found in the tracts aforesaid, this exclusion and exception according to the terms of the statute, shall not be construed to exclude coal and iron lands," and

Whereas, When this patent was issued, the lands included therein were not known to be oil lands, and their mineral character has since been discovered, and

Whereas, Under the terms of the law granting the lands to the Southern Pacific Railroad Company, and of the patent by which it holds and claims title to said lands, the said Company has no moral right, and should have no legal right, to the said oil lands.

Therefore Be It Resolved, That we request the President of the United States to see to it that immediate steps shall be taken by the proper officers of the government to recover the oil lands in the State of California now claimed and held by the Southern Pacific Railroad Company by virtue of the act of Congress granting to it non-mineral lands, and of the patent, excepting and excluding from its operation all oil lands, should any such be found in the tracts described in said patent.

PRESIDENT BUCKLEY: These resolutions will be referred to the Committee on Resolutions. I wish again to announce that resolutions introduced after today may fail of consideration both by the Committee and by the Congress, so I trust that anyone who desires to introduce any resolution will do so at this time.

SECRETARY NORMAN: I also have a resolution introduced by Major W. A. Mensch of Arizona, on the subject of hydraulic power, which reads as follows:

Resolution No. 31.

(By W. A. Mensch.)

Whereas, Locations have been made; necessary legal steps taken, and engineering work commenced to establish a Power Site at or near Pierce's Ferry at the mouth of the Grand Canyon of Colorado.

Furthermore, it has been demonstrated by expert engineers that a dam could ultimately be built that would store enough water to develop 1,500,000 horse power, and that this power development is to be located in such a place and manner that no harm will result to any vested interests of any kind. That on the the contrary its immediate development will stimulate industry and commerce in every part of the United States.

Be It Resolved, That this Mining Convention does indorse this project and commend it to the financial world for immediate development, believing that such a project would prove a lasting benefit to the entire country.

PRESIDENT BUCKLEY: The explanation accompanying the resolution will be referred to the Committee on Resolutions also. If the introducer of this resolution wishes to have the explanation read before the Congress it will be taken up at the time the resolution is reported back.

SECRETARY NORMAN: I also have a resolution presented by Mr. W. W. Bass, delegate from Arizona:

Resolution No. 32.

(By W. W. Bass, of Arizona.)

Be It Resolved, That this Convention petition Congress to not pass any bill providing for establishing any National Parks, or

National Monuments, until the Geological Bureau of the United States Government makes a thorough investigation as to whether there is any mineral within the bounds thereof, to warrant such park, and furnishes a full report of their findings to that honorable body.

SECRETARY NORMAN: Resolution introduced by W. E. Pedrick, of Colorado:

Resolution No. 33.

(By W. E. Pedrick, of Colorado.)

Whereas, Our Pacific coast cities are now dependent upon foreign coal for domestic and other uses at prices from \$8 to \$10 per ton for best grades, and

Whereas, In the Cascade range of mountains near tide water in the State of Washington there are thousands of acres of superior coal lands including anthracite, which was discovered, entered and opened up under the Revised Statutes of the United States, and the money received therefor by the Land Department, but which owing to the intrusion and interference of the forest reserve service, with the proper business of the United States Land Office, said lands have been withheld from patent for four years, when, but for such interference, this coal could now be delivered at retail in Los Angeles for \$5 per ton, therefore be it

Resolved, That this Mining Congress asks the General Land Office and Forestry Service of the United States to assimilate their differences, that this and other coals in the same situation in other localities, may be mined and sold; that Japan, Australia, British Columbia and other countries need no longer look to the Pacific coast for a market for coals.

PRESIDENT BUCKLEY: The resolution will be referred to the Committee on Resolutions. Are there any reports from committees? Is the Credentials Committee ready to report this morning? Their report should be in here at this time.

COLONEL BROWN, of Colorado: Mr. President, at the first day's sessions of this Congress I submitted some resolutions that were referred to the Resolutions Committee in the regular way. I found that I presented them under a misconception of my position here. I had been requested to appear here as a delegate for B. Clark Wheeler of Colorado, who could not be here, and I presented a proxy to the Credentials Committee. I believe that the chairman of the Arizona delegation also has the appointment of a delegate from Arizona by the governor, and the selection of myself as a proxy for him, and one man most highly interested in Nevada's prosperity has asked me to appear for him, and those credentials, I am advised over the telephone, are at my house. Yesterday, in a short conversation I had with the President, he called my attention to the fact that a proxy was not proper to act upon in the Congress, and, upon consideration, I am frank to say that I think his position is well taken, and that the Congress should not allow men to appear before them on proxies, and under those conditions, while I would like to defend the resolutions I have presented, and which will, in part, or possibly wholly, be returned to this body, I feel that it would only be by a privilege and by no right that I could have through the credentials which I have presented, and I will refrain from taking part in the discussion or assisting in any way in their consideration unless, by chance, this Congress should see fit to recognize me by unanimous consent. If any single member would object I certainly would refrain from taking part in the discussion.

GENERAL SAMPSON: Mr. President, in order that this matter may be settled now I move that unanimous consent be given to Colonel Brown to participate in the discussion.

PRESIDENT BUCKLEY: The gentleman is out of order. This motion can only be made at a time when the gentleman wishes to speak. You can make the motion only at that time. I wish to state, for the benefit of the Congress, that I told Colonel Brown this morning that, personally, I would be very glad to recognize him and give him an opportunity to discuss the resolution, not as a member or delegate to the American Mining Congress, but simply on account of the fact that he came here believing he was entitled to a seat on the floor, and I will be very glad, myself, without any action of the Congress, or if there is no objection on the part of any member, to recognize the Colonel at the time the discussion takes place.

COLONEL SAMPSON: Would it be possible at this time to move to give the floor to Colonel Brown?

PRESIDENT BUCKLEY: It would not be proper, according to the constitution and by-laws.

The first business before the Congress this morning is the report of the Committee on the Protection of Mining Investors. This report is by Thomas E. Kepner, who is not here, and I have requested the secretary to read this report.

SECRETARY NORMAN: The report reads as follows:

REPORT OF THE COMMITTEE ON MINING FRAUDS.

The American Mining Congress,
Thirteenth Annual Session,
Los Angeles, California.

Gentlemen:

The matter of mining frauds was brought to the attention of the American Mining Congress at the annual session in 1906 by Honorable George C. Pardee, then governor of the State of California, who gave a graphic description of a wildcat mining promoter having headquarters in the City of Philadelphia and who was flooding the State of California with literature containing all kinds of false representations and statements regarding an alleged mining property. The following excerpt is made from Governor Pardee's speech which appears on page 54 et. seq. of the published proceedings of that session of the American Mining Congress:

"We found, on examining the laws of the State of California, that we had, in a way, a law prohibiting mining frauds of that kind. But when we came to investigate further, we found there was only one way in which we could get at this man who was robbing the people of the State of California, and incidentally, I presume, the people of other states and territories, and that was to appeal to the postal authorities. There was no way we could get at him in the State of Pennsylvania, so we appealed to the postal authorities, and they stopped his mail, and thereby his business, under the postal fraud laws."

Governor Pardee further stated that there had been no prosecutions under the California statute or Pardee Act because the wildcat promoters "all hailed from other states. They have been beyond our reach."

Since that time, the American Mining Congress has made persistent efforts to have statutes modeled on the Pardee Act adopted by the legislatures of the several states and territories of the Union. The material part of that Act is as follows:

"Any person who knowingly makes or publishes in any way whatever, or permits to be so made or published, any book, prospectus, notice, report, statement, exhibit or other

publication of or concerning the affairs, financial condition or property of any corporation, joint-stock association, co-partnership or individual, which said book, prospectus, notice, report, statement, exhibit or other publication, shall contain any statement which is false or wilfully exaggerated, or which is intended to give, or which shall have a tendency to give, a less or greater apparent value to the shares, bonds, or property of said corporation, joint-stock association, co-partnership or individual, or any part of said shares, bonds, or property, than said shares, bonds, or property, or any part thereof, shall really and in fact possess, shall be deemed guilty of a felony, and upon conviction thereof shall be imprisoned for not more than ten years or fined not more than ten thousand dollars, or shall suffer both said fine and imprisonment."

This legislation, in the judgment of your committee, adds nothing of substance to the general law on the subject of false pretense and kindred offenses. Selling mining stock by means of false representations or statements, where all the material acts necessary to constitute the offense are committed within the jurisdictional limits of any one state, is now and always has been a punishable offense in every state and territory of the American Commonwealth having the common law as the basis of its jurisprudence. The Pardee Act adds nothing to the law theretofore existing in California, nor does it make prosecution and conviction under state law for what might be termed inter-state offenses easier or more effective. But if it be urged by the authors of that Act that its purpose is to make the mere publication of false representations or statements regarding a mining proposition a punishable offense, unaccompanied by any evidence of resulting damage to some individual within the limits of California, we reply that such interpretation of the Act is so repugnant to the spirit of our jurisprudence that it can never have the sanction of the courts.

The crime of obtaining property by false pretense was created by the statute of 30 Geo. II, ch. 24, sec. 1, which provided that all persons who knowingly and designedly by false pretense obtain from any person money or goods with intent to cheat or defraud any person of the same should be deemed offenders against the law; and the provisions of that act were extended by the statute of 52 Geo. III, ch. 64. The American States have uniformly adopted legislation modeled on those English statutes; in some, the offense is called "False Pretense;" in others, "Larceny;" whilst others designate the offense as "Swindling." But everywhere false representations with resulting damage are necessary to constitute the offense.

The State of Pennsylvania had such a law when Governor Pardee found it impossible "to get at the man in Philadelphia" for defrauding the people of the State of California. Why was it impossible? The difficulty was that that promoter had his headquarters in the City of Philadelphia and there resided, his victims were citizens of the State of California, the fraud committed was consummated in the latter state through an illegal use of the United States mails. Under such circumstances, neither the courts of California or Pennsylvania had or could acquire jurisdiction of the offender and punish the offense. Had the act complained of been committed within the boundaries of either state there could have been no difficulty whatever in prosecuting and convicting that wildcat promoter under the general law relating to false pretense and larceny. And even if a state statute could be so drawn as to give the state courts jurisdiction of this class of offenders, the difficulty in obtaining competent evidence would be very great, whilst the expense incident to making an examination of the alleged mine and securing the attendance of witnesses would prevent prosecution in most cases.

Is there a remedy? Probably ninety-five per cent of the frauds committed by means of false representations or statements in the sale

of mining stocks are accomplished through an illegal use of the United States mails. The postal fraud law is broad and, like the 62nd Article of War, covers a multitude of sins. Let the law be enforced. The National government is ready to act; but the victims of the wildcat promoter are usually found among the poorer classes and they have neither the means nor the information to enable them to act intelligently. And it is difficult to get the necessary evidence to establish a PRIMA FACIE case, which must be done before a fraud order will be issued by the Post Office Department. Possibly, as claimed by some of the inspectors, the penalty is too light; the maximum which may be imposed is imprisonment for four and one-half years and a fine of one thousand dollars.

The constitution of the United States gives Congress plenary power to regulate commerce between the several states, and if further legislation is necessary to cover inter-state offenses where the wildcat promoter is shrewd enough to avoid the Scylla of the United States postal laws, on the one hand, and the Chrybdis of state laws punishing false pretense, on the other, the needful legislation can be easily adopted.

Doubtful the Bureau of Mines will establish a system of collecting and classifying information regarding the mining districts and resources of the several states, as well as the standing of the legitimate mining companies operating therein, which will be of very great advantage to the bona fide mining investor. Co-operation on the part of the American Mining Congress and its widely scattered members and the mining inspectors of the several states, with the Bureau of Mines in gathering information and reporting apparent violations of the postal laws, would soon bring about a condition of affairs which would make mining frauds difficult of accomplishment and at the same time render prosecution and conviction of offenders easier.

State statutes on the subject of taxation would help. Mining locations held by the individual prospector should never be made the subject of taxation, but when such locations pass under the control of a corporation they should be taxed. Where, as frequently happens, the authorized promotion stock is all issued in payment of a mining property; where the board of directors solemnly declare that they have made an examination of the property and know its value, and that the par value of the stock issued is the reasonable and just value of the mining locations thereby acquired, a statute might very properly make such statements the basis of valuation of that particular property for the purpose of taxation. It is a trite saying that, the power to tax is the power to destroy; such legislation would prevent over capitalization and would go far towards driving illegitimate companies out of existence.

But after all is said and done, statutes are of little effect as a preventative for crime until public opinion demands their enforcement. The American Mining Congress may pass resolutions and secure the adoption of state legislation until the crack of doom, but mining frauds will never cease until public opinion secures the rigid enforcement of the postal fraud law.

Respectfully submitted,

THOMAS E. KEPNER,

Chairman of the Committee on Mining Fraud Legislation.

Approved:

THERON STEVENS,
MORTIMER N. GRANT,
Members of the Committee.

PRESIDENT BUCKLEY: I would like to ask if Mr. Mahan is in the audience. (No response.) If not, we will now listen to the report of the Committee on Federal Legislation. The Secretary will read the report at this time.

REPORT FROM THE COMMITTEE ON FEDERAL LEGISLATION.

(Individual Report of Member E. L. DeLestry.)

To the Officers, Members and Delegates,
Thirteenth Annual Convention,
American Mining Congress.

Gentlemen:

Not knowing whether Mr. John Hays Hammond will file with the Congress a report of the labors of the Committee on Federal Legislation since the adjournment of our last annual convention, I take the liberty to file a brief report thereon.

President Buckley, after our last adjournment appointed a Committee on Federal Legislation consisting of Mr. Thomas Walsh, Mr. John Hays Hammond, Mr. J. H. Richards, Mr. E. L. DeLestry and Mr. D. W. Brunton. It was to be the primary object of this Committee, as I understood it, to work for the establishment of a Bureau of Mines, an object which we have been endeavoring to secure for some years past. I regret to say that the Committee never met to organize and that Mr. Walsh, our chairman, was removed by death in the very midst of the campaign lying before us and therefore our Committee divided itself into Committees of one each to work each in our own way to secure the long desired result. Mr. Callbreath, our efficient secretary, went to Washington and remained on the field continuously and if his inherent modesty will not permit him to say so, I will do him the justice to say that without his most competent efforts and thorough-going methods, we would not have achieved the success in having this Bureau created.

The writer was close enough at hand to immediately proceed to Washington on the request of Mr. Callbreath, if it had been necessary to do so, but was able to win over several Senators, who in former years were strictly opposed to any effort to create a Bureau of Mines, by suggesting to them primarily that the United States was the only civilized country with a large mining industry that had not established a National Bureau of Mines and that we would be quite content to waive the establishment of a department as long as something was done to recognize the industry officially and lend the Federal assistance necessary to surround the mining industry with such official safe guards and provide such assistance as no individual State or Corporation could accomplish on its own account.

The Bill was introduced early in December 1909, passed the Senate on May 2, 1910, with some slight amendments agreeable to your Committee; was signed by the President on May 16th and became effective July 1st of the present year with an appropriation of a little more than a half a million dollars.

While a start has been made we must not relax our efforts and we must co-operate with it in every way to the best interests of the industry as a whole and not permit any one branch for personal interests to nullify the slight start already made. More can be secured later if the first years' efforts prove of benefit. I would respectfully suggest, however, to this session of the Congress, that the incoming President be authorized to appoint another strong, efficient and even larger committee on Federal Legislation as much has yet to be done and I desire to particularly call attention to Senate Bill 5489, introduced by Senator Nelson, in January of this year, concerning timber reserves and especially to Section 7 of that act which if enacted into a law will tie the hands of the honest prospector, locator and mine developer, as far as the use of timber on his own ground is concerned and will place a burden and hardship upon the efforts of developing and prospecting new territory in the mineral lands of the public domain.

The present craze for "Conservation" has reached a station where if allowed to run a full course will, as far as our industry is concerned, surely spell itself before many years so as to read "consternation." Conditions are already bad enough and any further check placed upon the

industry will mean the transferring of mining capital to other countries and leave the United States with its tremendous virgin mineral lands indefinitely tied up.

I trust the Congress will approve the efforts made by our Committee even if they have been made in a rather unorganized form, but the fruits of the efforts are before you and must be the final test as the value of such a committee when appointed.

Respectfully submitted,

E. L. DeLESTRY.

PRESIDENT BUCKLEY: Gentlemen, you have before you the reports of two committees—the report on Protection of Mining Investments and the report on Federal Legislation. A motion is in order to accept these reports and have them referred to the Committee on Resolutions.

MR. A. K. WRIGHT, of Nevada: Mr. President, I move that these reports be accepted and referred to the Committee on Resolutions.

Motion seconded and carried unanimously.

SECRETARY NORMAN: I have here the report of the Committee on Alaskan Mining Laws, which reads as follows:

REPORT OF THE COMMITTEE ON ALASKAN MINING LAWS.

To the President, Officers and Members of The American Mining Congress, Los Angeles, California.

When the question of the date for holding this convention was being considered by the officials of the Congress, your Committee, after conferring with a number of Alaskans, took the liberty of urging that a later date be set in order that Alaskans generally might attend the session and share in its deliberations. Our reason for doing this was founded wholly upon the belief that Alaskans could not reach Los Angeles in September, as they are so busy at this season that an attendance would be impossible.

When it was found however, that no other date would be available, the Committee proceeded to organize its work and sent throughout Alaska a general call for attendance upon the convention, requesting from our colleagues in various sections of Alaska, reports upon local conditions, and inviting four representative Alaskans to prepare papers upon subjects of vital interest to Alaska and to the Northwest.

Work of the Committee.

In the meantime your Committee has conducted a number of hearings, more or less formal, and had innumerable conferences. We have been able to visit personally a considerable portion of the different mining districts in Alaska. Further than this, in order to make a comparative study of mining conditions on the British side of Alaska, two or our Committee spent some ten days in visiting the mining men who were operating in Alaska under Canadian laws, in order that we might understand the results of the Dominion system of handling conditions identical with those found in the American portion of Alaska.

We are disappointed beyond measure that the steamer which was to bring Mr. Steele and one or more of our invited speakers, brought advices stating the entire inability of these gentlemen to leave Alaska at this time. Up to the present date, neither the Governor of Alaska nor our delegate to Congress have reached Seattle, though we were reliably informed that the Congress would have the benefit of the presence of both of these highly informed men.

The remaining and subscribing members to this report while they have now returned to Seattle, after having made all arrangements to attend the Congress, find ourselves engrossed in business matters con-



fided to us by Alaskans which require our immediate attention. As the closing weeks of Alaskan operations are now upon us, we do not feel free to neglect their interests, and have been forced to forego attendance at this time.

In view of the wide-spread interest and discussion, both intelligent and otherwise, which has been had of late on Alaskan matters, your Committee planned, and had ready to bring to Los Angeles, all of the data and memoranda prepared, being of the opinion that our chief usefulness to the Congress would be in directing our verbal report to such questions as were found to be uppermost in your minds when we arrived, as an attempt to prepare in advance so exhaustive a subject would be less instructive and responsive to your wishes.

Work of the Committee.

During the past year your Committee has been called upon on many different occasions to answer inquiries and furnish information upon Alaskan subjects to eminent Government officials, Senators and members of Congress and Eastern men, who were studying Alaskan conditions. This Committee has also been used by Alaskans as a channel, for presenting in as appropriate a way as possible, various matters of local importance requiring information or action, and these we have endeavored to direct into proper official channels.

We believe that the Committee can properly state that in all these matters our position has been *neutral* and *advisory*, and that we have endeavored at all times to reflect facts and conditions rather than any of the personal views of members of this Committee, and our work has been, we believe, free from an element of personal bias.

Alaska Joins In Inviting Colonel Roosevelt.

Early in the summer when it was suggested that Colonel Roosevelt might be induced to attend the Congress, we wired at length to Mr. Roosevelt urging him, on behalf of Alaskans, to attend and interest himself in Alaskan questions which might be discussed by the Congress, and some correspondence has been had with Mr. Roosevelt on this subject. Alaskans generally regret his inability to attend, for irrespective of personal views, they realize an element of sympathetic appreciation upon his part with pioneer conditions.

Visit of Cabinet Members.

The universal effort that has been made by Alaskans to induce the President to visit Alaska during the season has doubtless been brought to your attention. Alaskans generally are highly gratified that he was able to send us two distinguished members of his Cabinet, whom, as they were entering the interior of Alaska, it was the good fortune of your Committee to meet, and to have a very satisfactory conference on local questions.

These men laid aside all ceremony and all semblance of office, and their first act was to join the *Arctic Brotherhood*, the great fraternal order of Alaska. They started on their important journey wearing its emblem, and with the hand of fellowship for every Alaskan, and the earnest desire to inform themselves, first hand, of the conditions in Alaska.

Your Committee, in giving these gentlemen such data and information as they desired, sought to emphasize the fact, which they now report to this Congress, that Alaska is now suffering, and for the last two years has acutely suffered, not so much from a lack of adequate mining laws on the books, as from an *uninformed, though well meaning, long distance attempt to administer these laws*. While the representatives of our Government have been, for the most part, intelligent and able men, they have been so restricted in authority and hamp-

ered by red tape and cumbersome regulations, that for the past two years with a few notable exceptions, (and these largely of the placer industry), the extensive, and largely the intensive, development of Alaskan resources has been at least at a standstill.

What Alaska Needs.

Alaska can be put in a most healthful and enviable position if she can be given a helpful administration of existing laws, in the spirit in which they were enacted. Such a policy, once adopted towards Alaska, would necessarily bring with it the prompt and intelligent amending of laws which are susceptible of amendment, and the enactment of new legislation, as it may be required.

The men in charge of the administration of the law, should be granted needful authority to locally administer the laws which now exist, with full knowledge of the spirit and intent of that law, and questions which would not deserve serious attention of a town council, should not be referred to Washington to pursue a tedious course through various bureaus of the departments, before appropriate action can be taken.

An Invidious Comparison.

If the Federal Government and people at large desire to see Alaska develop, and her important resources made tributary to the National and Commercial needs of the States, then let them pattern somewhat after the policy of the Dominion Government, which is making such marvelous strides in the upbuilding of her empire in the Northland. By a policy of encouragement to settlers and prospectors, granting the local officials full authority to deal promptly and fearlessly with local conditions that arise in the enforcement and administration of the law. Let these officials understand that every proper act will be promptly approved, successful administration rewarded by promotion, and every blunder by prompt dismissal. Let our prospectors understand that our Government, like that of Canada, desires to see her resources developed along lines that will secure the greatest good for the greatest number of persons, and let capital be safeguarded, but duly warned that monopoly and commercial oppression in any form will not be tolerated, and Alaska will promptly respond by pouring her treasures into the lap of the American people.

Needed a Policy.

While this Committee has been studying somewhat closely, and would have been glad to have presented to this Congress, if desired, a more technical analysis of existing laws, it is our firm belief that the vital question in Alaska at the present time is not a matter of technical construction and amendment of existing statutes, but one of high administrative policy to be adopted at this critical point in her history.

This, then, is our report to the American Mining Congress:

"ALASKA'S PRESENT NEED IS A NEW ADMINISTRATIVE POLICY RATHER THAN ADDITIONAL LEGISLATION."

Let this statement be received in no sense as a reflection. Alaskans are not inclined to quarrel with the past. Their faces are set towards the future. We believe that the time has now come, with the fund of information which now for the first time is available to the Federal Government, when such a policy can be correctly annunciated. A vigorous, intelligent and helpful administration of existing laws, will early solve the present problems of the coalfields, the railroads, the forest reserves and the fisheries of Alaska, and will indicate from time to time further legislative steps.

We will go further and say that only in this manner can we learn what additional legislation will be needed.

Clearly it will be better for Alaska to be given a helpful and intelligent application of inadequate or even inappropriate laws, rather than to continue in the present condition.

Reason for Hope.

Your Committee indulges in a lively hope that this proposition has found firm lodgment in the minds of the men upon whose early action the solution depends, for the reason that, in addressing one of the most representative audiences ever gathered in the Northwest, one of the President's official family, a few days ago, upon his return from Alaska, stated in effect:

"From this time on I will expect my representatives in Alaska to deal promptly and effectively with local conditions which shall require such action, with the full expectation on their part, that their action will either be promptly approved at Washington, or their resignations accepted."

It is our belief that a large share of the present success of the Dominion Government is based upon the fact that they have found that their representatives in the Northwest, both great and small, are worthy of being so trusted, and we assuredly believe that American citizens deserve the same treatment.

The Leasing System.

Both President Taft and Ex-President Roosevelt have endorsed the general proposition of a leasing system for coal lands. We recognize the popular demand at this time for some such system, and are not opposed to its adoption, if it can be made uniformly applicable to unappropriated coal lands throughout the United States as well as Alaska. There are now in Alaska unappropriated and reserved from location by executive order, one thousand square miles out of twelve hundred square miles of known coal area, as distinguished from large districts which have not been visited by the prospector, and that there are within the United States, exclusive of Alaska, according to the report of President Taft, 95,515,000 acres of coal lands now withdrawn by executive order.

A general leasing plan, therefore, if brought to a successful solution, would be applicable to 80 per cent and we believe to fully 90 per cent of the known coal lands in Alaska.

Royalty on Coal.

The belief seems to have gained ground that Alaskans have objected to a leasing plan for the reason that they do not wish to subject the coal to a fixed royalty, or tax, per ton. This is not in any sense the case. Not only have Alaskans no objections to the imposition of a reasonable tax per ton upon coal exported, but they have gone so far as to publicly suggest such a fixed revenue, on condition, however, that the proceeds be applied to the construction of needful roads in the mining districts, the building of school houses and other expenditures in Alaska. We have found a well-rooted objection to taxing the products of Alaska for the benefit of the States, and it would seem that this objection is well grounded in the principles of true conservation in the opening up of a new country.

The Rights of the Discoverers.

For two years this committee has conducted hearings and personal investigations, and has been made intimately conversant with a large

majority of pending coal entries in Alaska. Some of the claimants have given in greatest detail the history of their locations, amounts expended, sources of the moneys received, and plans for the future, and we know that a most rigid investigation will reveal honor as well as fraud, good faith as well as corrupt motives, and valid entries as well as those which should be rejected. These men have acted upon the invitation of the Government, and it should now respect its contract.

Honest Money Invested.

These men have spent in the aggregate fully a million and a half dollars and years of effort in the prospecting and developing the coal resources of Alaska. They are for the most part men of moderate means, and they are entitled to be given the patents which the law of the location promised. There should be reasonable restrictions, of course, but the present claimants should be given such title as will enable them to raise the necessary development funds by selling bonds based upon their title.

Of the million and a half dollars which we estimate has been so raised and expended by these men, and their friends and associates in the States who have backed their efforts, we do not include a single dollar coming from any source which could in any way be criticized or made a subject of suspicion or innuendo by any member of this Congress.

In ascertaining the sentiment of Alaskans on the proposed leasing system, the committee has been surprised to find that those interests which have in the past been freely charged with a desire to monopolize the coal lands of Alaska, are today fostering, and in some cases advocating the adoption of a leasing system. This committee is in no way opposed to any of the interests operating in Alaska. We believe that the investment of large capital should be encouraged. It is, however, a fact, that for the last fifteen or sixteen months the leasing plan has been openly favored by certain of these interests.

Human nature and the desires of "big business" are sometimes selfish, and we sound a note of warning lest, taking advantage of a present popular clamor for the leasing system, and with less expense to themselves, by ignoring the rights of the discoverers, a monopoly of production of the Alaska coal fields may not be more readily brought about under a leasing system, than by a rigid enforcement of the anti-monopoly clause of the Act approved May 28, 1908.

We submit, that to force at least a large number of Alaska coal claimants to accept leases to the lands to which the law entitles them to receive patent, will absolutely confiscate their holdings. And further, if they, the men of Alaska, be eliminated, your committee is firmly convinced that the result will give the control of the Alaska coal fields to the transportation companies and their proteges, and that such companies, now existing, and yet to be formed, without being obliged to recompense or reimburse the men who have discovered and opened up these fields, will be able to effect a monopoly of production of the Alaska coal fields, more sweeping and iron clad than would be possible under a rigid, but helpful enforcement of the Act of May 28, 1908.

We find that Alaskans generally are endorsing the recommendation of the President and of the Secretary of the Interior for the creation of a Land Court. They have come to recognize this as the proper method for the determination of contests to which the Government is a party.

A Land Court Endorsed.

The officers of the General Land Office should no longer be forced to act in the treble role of detective, prosecutor and judge.

The Special Agent.

We submit that the claimants to Alaska coal lands and mineral lands, are entitled to have their rights determined as speedily as possible, and by an impartial tribunal. The proposed Land Court could promptly distinguish between valid and fraudulent entries, and do justice to the claimants, and at the same time provide a fuel supply for Alaska, the Pacific coast and the American navy.

A percentage of the Government Agents who have been called upon to make important reports upon Alaskan matters, have actually visited, in Alaska the subject matter of their reports. A very considerable number have not visited Alaska, but have written their Alaska reports in Seattle, while some, more venturesome spirits have endured the perils of a steamboat trip to the Capitol of Alaska.

It might be well if it were generally known that Special Agents L. R. Glavis and Horace T. Jones, whose reports upon Alaska, and attacks upon the character and integrity of Alaskans have been so widely quoted, have never been within five hundred miles of the coal fields of Alaska, and your committee have personally talked with Special Agents in the coal matters, who would not recognize a coal mine if they were transported thither in a Pullman car.

We write it down as an axiom that wherever an Agent of the Government has actually visited in Alaska, the subject of his investigations, be it coal, fisheries or otherwise, has met on the ground the men whose business he was inspecting, and has informed himself as to the actual facts and conditions surrounding the case, that his report has been broad and liberal in its character, and helpful in its results.

On the other hand, these reports which have handicapped and injured Alaskans, and which are largely responsible for current misinformation on Alaskan subjects, have been written in the "wilds" of Seattle, and amplified by men who have braved the hardships of Washington, D. C.

Read the following press dispatch quoting the President's representatives:

Cabinet Officers Impressed.

"ALASKA CONVERTS CABINET OFFICERS.

Wickersham and Nagel Come to See 'Little Place' Find Empire.—Realize Need of Coal.

"Attorney-General Predicts President Will Have Something to Say on Hearing Their Report.

"Cordova, Sept. 1.—Attorney General George W. Wickersham and Secretary of Commerce and Labor, Charles Nagel, sailed for Seattle today on the Government Seamship Albacross. They are due at Seattle Monday. Both officials said they were unable to express their surprise at the wonderful things they had seen in Alaska.

"THEIR SURPRISE.

" 'We came to see a little place Alaska, but discovered an Empire,' said Attorney General Wickersham. 'I realize more and more the importance of opening the coal lands, and after we have a talk with the President, he may have some recommendations that will result in straightening out the present tangle.

" 'The one great need of Alaska is railroad transportation, as upon it depends the adequate development of Alaska's mineral and agricultural lands. It is evident that this transportation cannot be furnished until the coal lands are opened

up, for cheap coal is required to operate a railroad. I am in hopes that something will be done in this matter this winter.'

"WANTS TO COME AGAIN.

"Secretary Nagel said that he hopes to be able to return to Alaska next year, and Mr. Wickersham expressed the same wish. Both expressed gratification at the cordial welcome given them by Alaskans, and said that as a result of their visit, they are now more able to understand Alaska's needs."

—Seattle Post Intelligencer, Sept. 28, 1910.

Our Recommendations.

First—The New Policy, and the helpful and intelligent enforcement and amplification of present laws, including the law, intended, as its title states, "To encourage the development of coal deposits in Alaska." To aid in this we believe in the creation of a Land Court, as proposed. We believe that such a tribunal can determine these questions uninfluenced by popular clamor, and its decisions will be readily adopted by the people at large.

Second—We feel that the most urgent demand of Alaska is for the opening of her coal properties. While unquestionably, transportation throughout Alaska is the greatest present necessity for the mining industry; coal must be provided before we have the transportation facilities.

Third—No policy for the development of Alaska will be well founded or can long endure which does not recognize as an essential principle, the rights of the discoverer and of the pioneer; that while Alaska invites, and must make attractive the investment of large capital, she must at the same time make an equal appeal, and equally safeguard and encourage the pioneer and the prospector.

Your committee does not believe that it has improperly emphasized the coal question in Alaska, for without coal, railroads cannot be operated, copper and other precious metals cannot be transported and locally treated, and with the building of railroads will come the development of the great quartz resources of Alaska, and this in turn will provide a local market which should in time populate the fertile valleys of Alaska with prosperous farming and stock raising communities.

Respectfully submitted,

COMMITTEE ON ALASKA MINING LAWS.

HENRY R. HARRIMAN, Chairman.

JOHN L. STEELE.

MAURICE D. LEEHEY, Secretary.

MR. McCARDY, of Minnesota: Mr. President, I move that the report be accepted and referred to the Committee on Resolutions.

Motion seconded and carried unanimously.

PRESIDENT BUCKLEY: We will now have an opportunity to listen to the report of the Committee on Resolutions covering the question of conservation, and I wish before that resolution is read to make a statement to those who are present and expect to participate in the discussion of this resolution. First, we will expect to adjourn at the usual hour, twelve o'clock. A discussion of this report will be continued this afternoon, and it might be desirable that you have an opportunity to look over the report before taking part in the discussion. I wish also to say that the participants in the discussion of this resolution will be limited to ten minutes, and that no one will have an opportunity to discuss this resolution a second time until every one

has an opportunity to be heard. Now, I trust that you will observe this ruling, and I also trust that no one who wishes to speak will ask for a continuance beyond the time limit set until everyone has had an opportunity to be heard upon the subject. I make this as a request, and I also make it as a ruling, and I trust that it will be observed in this discussion.

COLONEL GEORGE W. E. DORSEY: Mr. President, the Committee on Resolutions has had under consideration all questions referring to conservation. I have here a substitute report covering all those resolutions. Some of them, where there was repetition, were laid aside. I will ask the Secretary to read the report, and will say that all the resolutions offered are on the table of the Secretary and can be taken up during the time of this discussion.

The Secretary thereupon read said report, which is as follows:

TO THE AMERICAN MINING CONGRESS:

Your Committee on Resolutions having had under consideration various resolutions referred to it having reference to the subject of conservation, being respectively Resolutions numbered 10, 12, 22, 24, 25, 11, 13 and 16, do respectively make the following report:

As a committee of the whole we have adopted the report of the Sub-Committee on Conservation, which is hereto attached, and do to commend the adoption of same by this Congress.

GEO. W. E. DORSEY, Chairman.

JOS. A. JENNINGS, Secretary.

Los Angeles, September 30, 1910.

TO THE COMMITTEE ON RESOLUTIONS,

AMERICAN MINING CONGRESS:

Your Sub-Committee on Conservation, having had under consideration the various resolutions referred to it, do respectfully make the following report:

We recommend the adoption of the following resolutions:

Substitute for Resolution No. 10.

Resolved, That, in common with citizens of the United States engaged in other industries, we approve the theory and practice of true conservation, which means utilization and developing with the least possible waste, the natural resources of our country.

We recognize, as men engaged in one of the most important industries of our country the value of true conservation and its intimate relation to the mining interests, and recommend the enactment of such legislation both state and national, as will bring about a beneficial development of the mines, the public lands, the public water rights, and the timber contained within our great western country for the best interests of the present and future generations without unnecessary waste.

We condemn, however, as unwise, as opposed to the best interests of the American people, and as wholly unnecessary to the success of any plan of true conservation, legislation or proposed legislation which tends to make the miners and other citizens of the public land states who invest their time, labor and capital in the development of the natural resources contained within such states, lessees of, or tribute payers to the National Government.

We believe that every legitimate means should be adopted in the control of public lands to eradicate or lessen the evils of monopoly, but fail to find in any of the remedies suggested by the advocates of the leasing system how this can be accomplished by changing the present laws so as to take from the citizen a clear title and substitute therefor a lease.

Substitute for Resolution No. 12.

Whereas, The laws relating to Forest Reserves provide that nothing therein contained shall prohibit any person from entering upon such forest reservations for all proper and lawful purposes, including that of prospecting, locating, and developing the mineral resources thereof, and

Whereas, Reports have been made from time to time to this Congress, that in the administration of the rules and regulations of the Forest Service in many instances, mining and prospecting have been discouraged within the Forest Reserves, and miners and prospectors have been hampered and interfered with in the exercise of their lawful vocation, and

Whereas, Assurances have been made to this Congress by representatives of the Forest Service that in their administration of the laws relating to the public lands under their jurisdiction they will in no manner discriminate or interfere with the legal right of prospectors and miners, but will aid and assist them in the development of the mineral resources within the Forest Reserves.

Therefore, Resolved, That in reaffirming the right of every prospector who is a citizen of the United States, or who has declared his intentions of becoming such to enter upon and prospect every part of the public domain, we suggest and recommend a spirit of greater harmony and co-operation between the prospector and miner upon one side, and the officials of the Government on the other.

We further recommend that the laws relating to the public domain and particularly that part of the public domain lying within the Forest Reservations, be administered without burdensome and discouraging departmental rules and regulations and in such a manner as to foster and encourage the mining industry.

We condemn the actions of any class of citizens who go upon the forest reserves, or other public lands, for the purpose of locating fictitious mining claims in order to obtain the timber contained thereon, but we ask Congress to protect the miner and prospector in the development of the mineral resources by the enactment and enforcement of such laws as will give them the right to use such timber and other products of the soil from the public domain as may be necessary in the proper development of their mines.

As a Substitute for Resolution No. 22.

Resolved, That, recognizing that the right to appropriate to a beneficial use, waters upon the public lands, is fully recognized by Congress and the Courts to be wholly governed by the laws of the state wherein such waters are located, and

That the development of mines and the mining industry in many sections of our country is largely dependent upon the use of water power, and that there are large amounts of undeveloped water power now running to waste on the public domain which in the interest of true conservation should be utilized and put to a beneficial use, and

Recognizing further, that the National Government is the owner of large quantities of lands bordering upon and adjacent to streams, the waters of which belong to and are under the control of the states, and that by reason of such diversity of ownership and the different construction placed upon existing laws relating thereto, water power development in the West has practically ceased, and

Recognizing further, the great expense necessarily incurred in the construction of water power plants in the mining regions, which involves in most cases an expenditure of several million dollars; the uncertain markets for power presented by the mining districts; and the great benefits derived by the mining industry by the construction of such plants,

We therefore recommend, that the laws be speedily enacted which shall definitely and accurately define the rights of citizens to utilize

and put to a beneficial use the waters of the streams and the rights-of-way on public lands adjacent thereto for water power purposes, and that such laws provide for the concurrent use of the rights-of-way so long as the water rights are put to a beneficial use under the laws of the state, or for a sufficient length of time to enable those who engage in their development to secure a reasonable return upon their investment.

We believe and therefore recommend, that for the purpose of harmonizing all interests and bringing about a proper development of water power freed from monopolistic influences, all water power sites upon the public domain should be under the control and supervision of the respective states, wherein said sites are located.

As a Substitute for Resolution No. 25.

Resolved, That any conservation policy which places obstacles or restrictions in the way of the free and unrestricted prospecting and location of metalliferous mineral lands, or which favors any lease or royalty upon the future tenure and production of such locations, is inimical to the development of our country's resources, represents a step backward, and strikes directly at the welfare and prosperity of the entire mining industry.

Resolved Further, That we endorse the work of the Forest Service in its efforts to preserve and maintain a rational consumption of the Nation's timber resources, but we are unqualifiedly opposed to any and all withdrawals of legislation which will in any way interfere with the free prospecting, location of, or production from mining claims.

As a Substitute for Resolution No. 24.

Resolved that this Congress believes that the best interests of all the people will be conserved by State regulation and control of all natural resources within the boundaries of each and every state, in the very largest measure compatible with present Federal statutes.

We have had under consideration Resolutions Nos. 11, 13 and 16 and do respectfully recommend the same do not pass.

-Respectfully submitted,

CHARLES F. POTTER,
LYMAN A. SISLEY,
GEO. H. UTTER,
O. H. PICHER,
WALTER HARVEY WEED,
Sub-Committee on Conservation.

COLONEL DORSEY: Mr. President, as there will no doubt be extended debate upon this question, and I have heard the statement of the Chair that ten minutes is allotted to each one, I will yield now to Mr. Potter of Colorado who will open the debate. I move the adoption of the substitute that has just been read for Resolution No. 10.

Motion seconded.

PRESIDENT BUCKLEY: The motion is made and seconded that this Congress adopt the Committee's substitute for resolution No. 10. Are there any remarks?

COLONEL DORSEY: I yield to Mr. Potter of Colorado.

PRESIDENT BUCKLEY: We will hear from Mr. Potter of Colorado.

MR. CHARLES F. POTTER, of Colorado: Mr. President, when the State of Colorado was called to respond to the greetings extended

by the State of California and the City of Los Angeles, the Sierra Madre Club and others of this grand empire upon the Pacific coast the Colorado delegation modestly refrained from saying anything. We want to tell you now, however, that Colorado's greeting to this Congress is expressed in the resolutions which have just been read and which I hope you will debate, and in the few remarks I may be able to make to you with respect to them.

The limited time given me today to talk upon this important subject makes it quite necessary to eliminate a great many matters which might be of interest to us; but in order that I might not be misunderstood, and in order to deal with facts and not theories, I have prepared a short paper which I will read to you, in the hope that it may enlighten you, as it has me, with reference to this important subject.

Mr. Potter's paper will be found on page 309 of this report.

COLONEL DORSEY: Mr. President, I move that we take a recess until two o'clock, when this discussion can be resumed.

Motion seconded and carried.

A recess was thereupon taken until 2 o'clock P. M.

THURSDAY, SEPTEMBER 29, 1910.

Afternoon Session.

PRESIDENT BUCKLEY: The Congress will please come to order.

We will now listen to the report of the Committee on Mine Accidents, by J. Parke Channing, of New York. Mr. Channing is obliged to leave tomorrow morning before the session opens, and out of courtesy to the President and to Mr. Channing, who represents the President here, I wish to ask the indulgence of the Congress to have him appear at this time.

MR. CHANNING: Mr. President and Members of the American Mining Congress: I wish to express to you the regret of Mr. W. R. Ingalls, who is chairman of this committee and is unable to be present. He has asked me to formally present the report, I being one of the committee. It has been formally presented and printed, and it is now left for you to give it careful consideration and make such suggestions and amendments as you thing proper. Our idea was, as well as the five of us could, to produce a general draft which would be applicable everywhere and then give a long period for it to be discussed. Mr. Ingalls has sent on a few remarks of his own for me, which I will read to you, which give rather fully his ideas and those of the committee:

"In the preparation of this draft, the committee recognized fully the difficulty, and, perhaps, the impossibility, of outlining a law for uniform adoption by the mining States, which would be of equitable operation in all. The conditions of mining in this great country are so diverse that measures entirely reasonable in one district might be far too harsh and vexatious in another. Moreover, there are many districts in in which practices of mining, admittedly dangerous, have become so deeply ingrown, that any enactment suddenly rendering them illegal cannot lightly be made.

"The difficulties of drafting a uniform law are increased by some of our constitutional limitations. For this reason many of the provisions incorporated in the laws of foreign countries cannot be introduced here. A legislature cannot delegate its right to legislate and the authority of the mine inspector must be carefully prescribed by the law. It is consequently difficult to guard by legislation against certain dan-

gers. For example, there is the danger of opening a large stope too near the surface, or some other working, running the risk of a break-through (an accident that recently happened); or in open-cast mining of working men alongside of a bank too high and too steep, exposing them to the danger of a slide. The entire system of mining by the caving system is subject to risks that cannot be formulated on paper, and, indeed, about the same may be said with respect to timbering in all kinds of mining. We are not yet ready to clothe our mine inspectors with authority to order summarily the suspension of operations that in their opinion may be dangerous, which probably could be done under the police power, and consequently the committee found it necessary to provide for a milder and slower procedure in such contingencies. A consideration of these principles will probably account for what at first sight may appear to be omissions on the part of the committee.

"However, the ideas of the committee with respect to legislation are certainly far more advanced than anything existing upon our statute books insofar as metalliferous mining is concerned. The committee proposes no mere code of regulations, offered as suggestions, which may be obeyed or disobeyed largely at the option of the operator and miner, but recommends an actual law, which it thinks will be effective, specifically fixing responsibility and providing for penalties for non-compliance. The enforcement of any law naturally depends upon the means therefor provided, and the committee is consequently of the opinion that the essential factor toward progress is the provision of an adequate system of mine inspection. We may safely say that at the present time this is not possessed by any metal-mining State in this country. If the report of the committee results in the broadening of the views of legislators in this respect, much will be gained."

MR. CHANNING (continuing): From my own point of view I will say a few words to the Congress. One of my earliest experiences was that of being mine inspector in Michigan, and therefore, perhaps, I may be justified in expressing some opinion upon the subject, for I have been on both sides of the fence.

We have heard a great deal about conservation. There is one thing in this country that we do not conserve, and that is the life and the health of the human being. Particularly is this so in mining, and I think that the most important thing that we should look forward to is the conservation of the life and the health of the men underground. (Applause.) The only way in which this can be done is by good mining laws and the proper execution of them.

The theory has been advanced, and I believe that every thinking operator, whether it being in mining or any other industry, agrees with it—that every industry should bear the responsibility of its loss of life and loss of capacity to work of its men. When that thing is realized, and when the same law applies to everyone, I think then, of necessity, more care will be exercised in looking out for the lives of men. I think, too, that the money that will be paid to the relatives of a dead man or an injured man, will go directly to them or to him, and that they will not be under the necessity of engaging a lawyer and perhaps giving the lawyer half of what he gets. The thing certainly should be put on a careful economic basis, and it is going to come to it. Everybody ought to be ready to take up his part of it and see that he does it. Now, that will mean that we will have to be more and more careful on the part of the operators in looking out for the miner. This means, in the first place, a good, careful and well drawn law, and each state will need its own law. The laws will be different

in different states, and that is one reason why state control of mine inspection I think would be superior to federal control.

Another thing is the appointment of mine inspectors. The position of mine inspector must not be the reward of political activity. The position of mine inspector must be secured because of the great capacity of the man for that position, and that means that you will not be able to get a good man for a few dollars; you will have to pay him. It is difficult to expect, for the present at least, in the United States that mine inspectors are selected from the same high grade that they are selected from in England or on the Continent. In England the mine inspector for a district is the peer, if not the superior, of all the managers under him. And that is proper. And therefore, under those conditions, an immense amount of latitude can be given to a man of this kind. Of course in this country we are not far enough advanced that we will be able to engage men and pay them such large salaries, but certainly we should not expect, as is being expected in some states, to get a mine inspector for the small pittance of \$1,800 or \$2,000 a year.

There is another matter, when it comes to the execution of mining laws, that should be strongly enforced, and that is the responsibility of the miner himself for any infractions of the rules. Time and time again when I was mine inspector I have seen men commit acts which, perhaps, at that particular time, caused no accident, but which might at other times have caused serious accidents, resulting in death or injury of perhaps the man himself or his co-workers. An act of that kind, under most of the mining laws at the present time, is unpunished. In any law that is adopted it should be punished. I remember distinctly in the English law it provides that any man who goes into a place where there is a missed hole before the proper time has expired, that man is liable, and can be brought before a justice of the peace and either fined or imprisoned. We should have a sword that would cut both ways. Let it be drawn upon the manager or the superintendent or the foreman who neglects his duty, and, to a certain extent, it should operate against the man who endangers not only his own life but the lives of his fellow workmen.

REPORT OF THE COMMITTEE ON PREVENTION OF MINE ACCIDENTS.

To the American Mining Congress, American Institute of Mining Engineers, Mining and Metallurgical Society of America.

The committee that makes this report was appointed at the meeting of the American Mining Congress, at Denver, Colo., in November, 1906. The appointment had in view the drafting of a law for the regulation of quarrying and metalliferous mining under the police laws of the States, with the hope that the uniform adoption of such a law could tend to reduce the number of accidents in mining.

Since its appointment, the committee has had under serious and continuous consideration the matter with which it was charged. At the meetings of the American Mining Congress in 1907, 1908 and 1909, it reported progress. At the meeting in 1909 it was authorized to present its report not only to the American Mining Congress, but also to the American Institute of Mining Engineers and the Mining and Metallurgical Society of America, and to present its report in printed form during the interim between meetings of the American Mining Congress.

The committee collected from the officials of the States of the Union copies of their mining laws. With the assistance of the Engineering and Mining Journal, copies of the laws of Great Britain, the Transvaal, New South Wales, Victoria, Queensland, Western Australia, Tasmania, New

Zealand and certain European countries were also obtained. These laws were subjected to careful study. The first publication of the committee was a summary of the more important metalliferous mining laws of this country. Upon the basis of the existing laws of the States of the Union, Great Britain and the English speaking colonies, a tentative draft was prepared and printed in limited number in 1909, for convenience in securing the advice and criticism of a considerable number of persons engaged in the mining industry. In this way valuable suggestions were received.

At the request of the chairman of this committee, Mr. Frederick L. Hoffman, statistician of the Prudential Insurance Company, of Newark, N. J., summarized and reviewed the available statistics of fatalities in metalliferous mining in the United States. Mr. Hoffman's report was published in the Engineering and Mining Journal of March 5, 1910, and accompanies this report as appendix B. No such summary of fatal accidents in the United States has heretofore been compiled, so far as we are aware.

The deficiencies of his report are frankly recognized by Mr. Hoffman. He has made the most out of the data available, but unfortunately, to the discredit of our mining industry, the available data are scanty. For only six States has it been possible to secure statistics extending over a long series of years. The other States do not report them. Consequently, the figure reached by Mr. Hoffman must be regarded as indicative rather than as absolute.

The probability is, however, that the actual ratio of fatal accidents in metal mining is larger than the figures reported by Mr. Hoffman, because his figure is based chiefly upon the States which have provided the best mining laws and the best systems of mine inspection. The good of these things is clearly shown by the statistics. Thus, in Colorado and Montana, which among the Western States are conceded to have the best laws, the general tendency of the fatality ratio has been downward. We are led to believe that if those States and Territories like California, Nevada, Arizona, New Mexico and Utah, which have not had either adequate mining laws or systems of mine inspection, could be summarized in the same way, the general ratio of lives lost per 1,000 men employed would be increased.

Mr. Hoffman clearly established something that has been strongly suspected, namely, that the loss of life in metal mining in the United States is fully as great as in coal mining. Mr. Hoffman has arrived at the average of 3.09 per 1,000 in metal mining, as compared with 3.13 in coal mining. Bearing in mind the condition that we have mentioned above and the fact that the statistics for coal mining are far more complete than for metal mining, we surmise that the loss of life in metal mining in the United States is actually larger, proportionately, than in coal mining. This emphasizes the importance of a movement to remedy bad conditions.

Draft for a Law.

The chief work of the committee has been in the preparation of a draft for a law. In this work it has invited and received the assistance of several members of the bar, especially Dr. Rossiter W. Raymond, of New York; E. E. Ellinwood, Esq., of Bisbee, Arizona, and Archibald Douglas, Esq., of New York. To the valuable co-operation of Mr. Douglas, who devoted a great deal of time to the matter, particular acknowledgment is due. Mr. Douglas prepared the draft for a law finally adopted by the committee, which accompanies this report as appendix A.

In the preparation of this draft, the committee has had in mind the preparation of a law that will be effective, and not merely a code of rules and regulations of which the enforcement will be largely optional. The committee has aimed to fix responsibility upon operator, superintendent, foreman and miner respectively, and the failure on their part to comply with the terms of the law is to be punishable by suitable penalties. The

enforcement of the law is charged primarily upon the inspector of mines, who is to be to all intents and purposes a policeman.

The conditions of mining in various parts of the United States are widely different. The basic laws of the several States also differ to more or less extent. It has been beyond the ability of this committee to draft a law, which it can say with assurance will be equitable under all conditions obtaining in mining in the United States; or will be in conformity with the basic laws of all the States. Consequently, the committee presents its present draft as a preliminary and invites criticism for its assistance in preparing a final report.

Although the duties of this committee were limited to quarrying and metalliferous mining, the committee suggests that its draft for a law may advantageously be made to apply to all kinds of mining in those States which have no special colliery law. Coal mining and metal mining do not differ in principle to so great an extent as is popularly supposed. The fundamental rules for safety in metal mining apply also to coal mining, but the latter has dangers peculiar to itself which should be considered in special provisions in those States where coal mining is extensively carried on.

Mine Inspection.

In the opinion of the committee, the essential steps toward reducing the loss of life in metalliferous mining are (1) a comprehensive and effective law; and (2) an adequate system of mine inspection. The latter is the keystone of progress. Much can be accomplished by an adequate system of mine inspection, even if a comprehensive law be lacking, but no matter how thorough and effective in theory a law may be, it will fail in its purpose unless provision be made for its sincere, impartial and positive enforcement by an adequate system of competent mine inspection.

To secure such a system of mine inspection, the States must appropriate a good deal more money than any has yet done. Each State must have a mine inspector, and he must be provided with a sufficient number of deputies to enable frequent inspections of all operating mines to be made. One inspection of a mine in a year is not enough. The inspector and deputies must, moreover, be provided with proper funds for clerical work, traveling expenses, etc. So far as we are aware, the State of Colorado makes the largest appropriation for inspection of metal mines, its appropriation being \$25,000 per year. Other important mining States appropriate only \$10,000. In the opinion of the committee, such appropriations are utterly inadequate. For States possessing a mining industry of the importance of that in Colorado, Utah, Montana, Nevada, California, and, in fact, all of the States and Territories west of the Rocky Mountains, an annual appropriation of \$50,000 to \$100,000 per State is necessary. Such expenditures are thoroughly justified by the importance of the end to be gained. At the present time the number of persons killed annually by accident in the metalliferous mines of the United States is probably in the neighborhood of 500, estimating upon the rate of 3.09 per thousand as determined by Mr. Hoffman. In many important foreign countries, the death rate is less than $1\frac{1}{2}$ per thousand. We operate in this country at a more intense rate than in many foreign countries, and perhaps our death rate per tonnage of ore produced per man would not compare so unfavorably, and because of this more intense operation it may be impossible for us to attain the low rate of some foreign countries. It must be borne in mind that it is not only underground but also overground that accidents are more numerous in this country than in Europe. There is a spirit of recklessness in this whole land that leads people to take risks that the European population avoids. But certainly our mining practice is capable of great improvement with respect to the safety of the miners, and the magnitude of the annual loss justifies a large State expenditure for the purpose of its reduction.

Consequently, the committee emphasizes strongly that the reduction of loss of life in mining is dependent chiefly upon the money that the

people of the respective States are willing to spend for the enforcement of their mining laws, and in such expenditures the committee urges great liberality.

It is essential that mine inspection be impartial—absolutely free from all political, personal or selfish interests; and, moreover, that it be competent. In its draft for a law, the committee has incorporated, after very careful consideration, qualifications for mine inspectors, which, in its opinion, will provide the essential conditions stated above.
New York, Sept. 1, 1910.

Respectfully submitted,

WALTER RENTON INGALLS, Chairman.
J. PARKE CHANNING
JAMES DOUGLAS
JAMES R. FINLAY
JOHN HAYS HAMMOND

APPENDIX A.

AN ACT

RELATING TO METALLIFEROUS MINES IN THE STATE OF
-----, AND TO PROVIDE FOR THE HEALTH AND
SAFETY OF PERSONS EMPLOYED IN AND ABOUT THE SAME.

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Sec. 1. Definition of Terms.

The terms of this Act shall apply to all quarries and metalliferous mines in the State of _____ employing more than 10 persons in any period of 24 hours.

MINE. The term "Mine," when used in this Act, is intended to include quarries and prospect openings; and to mean any and all parts of the property of a mine, prospect, quarry and mining plant on the surface or underground, which contribute directly or indirectly to the mining or handling of minerals. But the term "Mine" shall not apply to collieries.

OPERATOR. The term "Operator," when used in this Act, means the person, firm or body corporate in immediate possession of any mine and its accessories as owner or lessee thereof, and as such responsible for the condition and management thereof.

SUPERINTENDENT. The term "Superintendent," when used in this Act, means the person who shall have the immediate supervision of the mine.

MINE FOREMAN. The term "Mine Foreman," when used in this Act, is a person who is charged, at any one time, with the general direction of the underground work.

INSPECTOR AND DEPUTY. The term "Inspector," when used in this Act, signifies the State Inspector of Mines, and the terms "Deputy" and "Deputy Inspector," when used in this Act, means a State Deputy Inspector of Mines.

EXCAVATIONS OR WORKINGS. The words "Excavations" and "Workings," when used in this Act, signify any and all parts of a mine, excavated or being excavated, including shafts, tunnels, entries, galleries, open cuts and all working places, whether abandoned or in use.

Sec. 2. Office of Inspector of Mines.

The office of Inspector of Mines for the State of _____ is hereby created.

The Governor of the State, by and with the advice and consent of the Senate, shall appoint such Inspector of Mines. The Inspector of Mines shall be at least 30 years of age, a citizen of the United States, a resident of this State for at least one year previous to his appointment, and shall be practically engaged in metalliferous mining, and shall have had at least 10 years' experience in underground mining in the United States of America. The Inspector of Mines (but not the deputy inspectors) must have been for at least five years in charge of a mine, in the United States of America, employing fifty or more men underground, to be qualified for such office. He shall receive as full compensation for his services a salary

of _____ Dollars (\$_____) per annum. He shall hold his office for a term of four years (the first term beginning January —, 19—), unless sooner removed by the Governor, or until his successor is appointed and qualified; and in case of vacancy by death, removal, resignation or otherwise, the Governor shall fill such office, for the remainder of any such term of four years, by appointment.

Sec. 3. Deputy Inspector of Mines.

The office of Deputy Inspector is hereby created. The Inspector of Mines is hereby authorized and directed forthwith, upon the entering of the duties of his office, to appoint _____ Deputy Inspectors, who shall each receive a salary payable at the rate of \$_____ per annum while holding such office. All Deputy Inspectors appointed under the provisions of this Section shall be subject at any time to removal by the Inspector. The Inspector shall also appoint hereafter such additional deputies as the Legislature may provide, who shall, when so appointed by the Legislature, be in all ways subject to the provisions of this Section. In case of vacancy in the office of any Deputy Inspector caused by death, removal or otherwise, the Inspector of Mines shall forthwith fill such vacancy. The qualifications of all Deputy Inspectors shall be the same as those required in the case of the Inspector of Mines, as set forth in Section 2 of this Act; excepting, however, that such Deputy Inspectors shall have been for two years in charge of a mine in the United States of America, employing at least twenty-five men underground. All Deputy Inspectors shall perform duties as required by this Act, and shall be under the direct control and direction of the Inspector of Mines. In the absence or disability of the Inspector of Mines, any deputy designated by him may act with like authority as the Inspector of Mines. In case of a vacancy in the office of Inspector of Mines, the deputy longest in office present, shall act as such Inspector, until such vacancy has been filled.

Sec. 4. Qualifications and Powers of Inspectors.

No person shall be appointed to the office of Inspector or Deputy Inspector, nor be qualified to hold the office of Inspector or Deputy Inspector, while an employee, director or officer of any mining, milling or smelting company; or while directly or indirectly connected with any mining company or co-partnership operating in this State, either as stockholder, partner, or in any other capacity; or while engaged in private practice as a consulting engineer. The Inspector and each Deputy must devote his entire time to the duties of their respective offices; and it shall be unlawful for the Inspector, or any Deputy, to be otherwise employed by the State of _____, or to act directly or indirectly, for or on behalf of any candidate for public office, or for any political party, or receive compensation, either directly or indirectly, from any candidate for public office or from any political party in the State during the terms of such Inspector or Deputy Inspector. Failure to observe the provisions of this Section shall render the Inspector liable to immediate removal from office by the Governor without further cause shown; and such failure shall render any Deputy Inspector liable to immediate removal by the Inspector of Mines, without further cause shown; and the Governor and Inspector of Mines are hereby authorized and empowered to make removals in such cases.

Sec. 5. Salary and Expenses.

All reasonable and necessary expenses actually incurred by the Inspector and by any Deputy in the performance of their duties, for traveling expenses, clerk-hire, postage, stationery, printing and disbursements incidental and reasonable to the office of Inspector, or of Deputy Inspector, shall be paid by the State Treasurer upon the warrant of the Comptroller*

issued upon proper vouchers therefor, when approved by the Inspector of Mines, but such expense, together with the salaries of the Inspector and his Deputies, shall not be incurred in excess of appropriations by the Legislature. The salaries of Inspector of Mines and of all Deputy Inspectors shall be paid as the salaries of other State officers are paid.

Sec. 6. Inspectors Shall Be Allowed all Legal Expenses.

The Inspector may employ counsel to represent him, or any Deputy, or to assist in the prosecution of actions or proceedings brought under the provisions of this Act.

In addition to the expenses allowed to the Inspector, as set forth in Section 5 of this Act, he shall be allowed all necessary expenses and reasonable counsel fees actually incurred in enforcing the several provisions of this Act in the respective Courts of this State, and the same shall be paid by the State Treasurer on warrants drawn by the Comptroller* after auditing the same; all such claims and expense accounts shall be presented and passed by the Inspector, and approved by the Court before which such proceedings were instituted. In the event of any costs being finally taxed against the State in any suit in which the State, at the relation of the Inspector is either plaintiff or defendant, the same shall be approved by the Court, and audited and paid in like manner as such legal expenses are authorized to be paid as aforesaid.

Sec. 7. Office and Records of Inspector of Mines.

The Inspector of Mines shall be provided with a properly furnished office in the State House in _____ in which he shall keep a record of all mines examined either by the Inspector or his deputies, showing the dates of such examinations, the condition in which the mines so examined were found, with particular reference to the safety, ventilation and sanitary conditions of each mine so examined, the manner and method of working, all violations of the provisions of this Act found, if any, the action taken thereon, and the result of such action, together with recommendations made in case of each mine examined by the Inspector or any deputy; and any other data or information pertaining to his office and acquired during the carrying out of this Act. For the purpose of aiding the Inspector in making up such data it shall be the duty of each deputy to transmit from time to time, or upon request from the Inspector, a complete record of all mine examinations made by such deputy, and an itemized statement of his work as such deputy in such form and covering such detail as the Inspector shall in his opinion deem necessary.

All documents, plans, books, memoranda, notes and other material pertaining to the office of the Inspector of Mines, or of any Deputy Inspector, shall be the property of the State, and shall be delivered by the said Inspector, or by such Deputy Inspectors, to their successors in office. The Inspector may at any time call for all or any papers, documents, plans, books, memoranda, notes or other material in the hands of any deputy, who shall deliver same to said Inspector upon call.

Sec. 8. Report to Inspector of Mines.

It is hereby made the duty of the operator of each and every mine within the State to forward to the Inspector at his office, not later than the 20th day of January, in each year, a detailed report in writing, on a form prescribed by the Inspector, showing the character of the mine, tonnage of ore produced during the previous year, ending December 31st, the average number of men therein employed during the year (the average

*Each State will substitute the title of the proper official according to its own system.

number of men being computed by dividing the total number of shifts worked per man by the number of days the mine was worked), the number of days the mine was worked, the number of fatal and serious accidents during the year, and such other information relative to the workings, equipment, ventilation, sanitation, means of ingress and egress, shafts, trucking, supports, safety devices, storage of explosives, means taken to protect lives and usual safety of men in relation to any of the requirements of this Act, as the Inspector may, from time to time require. All such reports shall be filed in and become part of the records of the office of the Inspector of Mines. Blank forms for such reports shall be furnished by the State.

Provided, however, that in the case of any mine being operated for less than one year prior to December 31st in any year the operator in such event shall forward a report, in like manner, covering the period during which said mine was operated, and

Provided further, that in the event of the sale of any mine during any year prior to December 31st, that then and in that event it shall be the duty of the owner or operator so selling, leasing or turning over such mine to a succeeding operator to supply to such succeeding operator a like report, as required in this Section, covering the period of such former operations within said year; and it shall then and in that event become the duty of such succeeding operator to forward such report so turned over, together with such last operator's report, for the period of such last operator's operations, to the Inspector of Mines as aforesaid, not later than the 20th day of January in each year.

In all cases, occurring in or about any mine, of underground fires, breakage of ropes or other gear by which men are hoisted, or lowered, overwinding while men are being hoisted, or inrush of water from old workings, whether or not personal injury or disablement results, a report thereof, signed by the operator or superintendent must immediately be sent in writing to the Inspector.

A failure, neglect or refusal to make such reports or to give such information as are provided for in this Section, upon demand made in writing by the Inspector, or by any of his Deputy Inspectors, shall constitute a misdemeanor and every such operator, or person in charge of such mine, or other person so failing, neglecting or refusing after written demand made as aforesaid shall be deemed guilty of a misdemeanor, and on conviction shall be fined for each offense not less than \$50 or more than \$200; and each separate failure, neglect or refusal after demand, as aforesaid, shall constitute a separate offense.

Sec. 9. Designation for Service of Notices.

Every operator of any mine within the provisions of this Act, shall, within 60 days after the passage of this Act, file or cause to be filed in the principal office of the Inspector of Mines a designation, duly verified, by such operator, designating a person upon whom all notices, warnings or processes, required to be served under the provisions of this Act, may be served in this State. The person so designated must have an office, place of employment or place of business within 10 miles of the principal place of business of such operator within the State, and such designation shall give the office, place of employment or place of business of such person so designated. Such designation shall be accompanied by the written consent of the person so designated, and shall continue in force until revoked by an instrument in writing designating in like manner some other person upon whom such notices or processes may be served, or until the filing in such office of a written revocation of said consent executed by the person so designated. If the person so designated dies or removes beyond 10 miles of the place of business of such operator, or files a revocation of his consent, the operator must, within 30 days thereafter, designate in like manner some other person upon whom such notices or processes may be served within this State.

Services upon such designated person of notices, warnings or processes shall, in all cases arising under this Act, be deemed service upon such operator; provided, however, that nothing herein contained shall be construed to prevent the said operator in person, or its officers or agents, if said operator be a corporation, or any employee of such operator, from being so designated. A failure on the part of any operator to carry out the provisions of this section shall be deemed a violation of this Act.

Sec. 10. Secrecy of Records.

The Inspector or any Deputy Inspector, or any person employed by such Inspector or Deputy Inspector, or any person having access to the papers filed in the office of said Inspector, or in the office of any Deputy Inspector, shall not make public or reveal to any person or persons, either orally or in writing, all or any part of the contents of any report, complaint or document filed in the office of the Inspector of Mines of this State, or in the office of any of his Deputy Inspectors, or reveal or make public to any person or persons any knowledge or information in regard to the safety or physical or financial condition of any mine, mining rights, prospect or mining company or concern obtained by any of the aforesaid Inspector, Deputy Inspectors or employees, while in the exercise of their official duties. Nothing herein contained, however, shall be construed to prevent any Inspector or Deputy Inspector, or any clerk, or employee of such Inspector or Deputy Inspector from making official reports to the Governor or Legislature of this State, to the Inspector of Mines, or to any Deputy Inspector, or from giving evidence in any court of justice in this State in discharge of his official duty. An Inspector of Mines, or any Deputy Inspector of Mines, or any employee or clerk who violates any of the provisions of this section of this Act, shall be guilty of a misdemeanor and shall be punished upon conviction by a fine of not more than \$500, or by imprisonment of not more than one year, or both; and shall also be dismissed from his office or employment.

Sec. 11. Duties of Inspectors. Inspection. Powers.

It shall be the duty of the Inspector of Mines by himself or by deputy to visit at least once every two months every mine in the State employing 50 or more men underground; and every other mine at least once every year and oftener if in his opinion the safety of the men employed within the mine so requires; and to inspect, inquire and examine into the operation, workings, timbering, safety appliances, machinery, sanitation, ventilation, means of ingress and egress, means taken to protect the lives and insure the safety of the miners, together with the cause of accidents and accidental death therein, and in general, to inspect and ascertain what means are taken to comply with the provisions of this Act. For the purpose of making such inspection and ascertaining facts in connection with such examination and inquiry, the Inspector, or his deputy, shall have full power and authority at all hours to enter and examine any part of any mine or mining plant within this State, or any part of the workings thereof. All operators and their employees shall render to the Inspector or his deputy such assistance as may be necessary to enable the Inspector or his deputy to make such examination.

For the purpose of ascertaining facts in connection with any inspection, inquiry or examination, the said Inspector, or any deputy, shall have full power to compel the attendance of witnesses by subpoena, and to take depositions, to administer oaths and to examine, cross-examine and take testimony of such persons as may be deemed necessary for the information of the Inspector or his deputies. Any person refusing to obey a subpoena issued by the Inspector, or by any deputy, or any person who shall wilfully in any manner hinder or obstruct the Inspector, or any of his deputies, in the performance of his or any of their duties, under this Act, shall be guilty of a misdemeanor. Any witness appearing before the In-

spector, or before any of his deputies, in response to a subpoena so issued, who shall knowingly and wilfully testify falsely to any material matter, shall be deemed guilty of perjury, and upon conviction as by law provided, shall be punished for perjury.

Sec. 12. Dangerous Mines. Duties of Inspectors.

Whenever the Inspector shall find any mine, or part of any mine, in an unsafe condition by reason of any violation of any of the rules or provisions of this Act, or in a condition dangerous or detrimental to the life or health of those employed therein, for the reason or by reason of defects in timbering, mining, ventilation or sanitation, it shall be the duty of the Inspector at once to serve or cause to be served a notice in writing upon the operator of such mine, and such notice shall set forth in detail the nature and extent of the defects which render the mine or part of the mine unsafe, dangerous, or detrimental to the life or health of those employed therein, together with the point or place in the mine, or in the workings of the mine, where such defects exist, and such notice shall require such necessary changes to be made in such mine or part of the mine without delay, and within a specified time in the discretion of the Inspector, to make the same conform to the provisions of this Act.

If it appears from a re-examination of the mine by the Inspector, or a Deputy Inspector, that such necessary changes have not been made within the time specified in such notice, and that the mine or part of the mine is still in a condition dangerous to life or health, and in the opinion of the Inspector it is necessary for the safety or the life or health of the employees in such mine or part of the mine, that the same be vacated, it shall be the duty of the Inspector forthwith to institute an action for an injunction in any Court of competent jurisdiction, in the name of the State, at the relation of the Inspector, to restrain the operation and working of said mine, or part of said mine, and the permitting of employees therein for purposes other than to remedy the defects complained of, until the provisions of this law are complied with, and the said mine, or part of the mine, made safe for the employees therein; and the plaintiff in such action, without bond, and upon ex parte affidavits made by the Inspector, or a Deputy Inspector, showing in detail the nature and extent of the defects which, in such affiant's opinion, render the mine, or part of the mine, unsafe or detrimental to life or health of those employed therein, and stating that such mine, or part of the mine, is, in the opinion of the affiant, in a condition dangerous to life or health, may procure a temporary injunction, pending the trial of said action, from any Court or Judge in vacation, if, in the opinion of the Court or the Judge, the facts warrant the granting of such temporary injunction, enjoining the operation and working of said mine, or part of said mine, and the permitting of employees therein, except for the purpose of remedying the defects complained of, until the further order of the Court.

Provided, however, that the defendants in such actions shall have the same opportunity to be heard, upon motion to vacate such temporary injunctions, as defendants have in any actions brought in this State in which temporary injunctive relief may be granted.

Sec. 13. Refusing Inspection. Penalty.

If the operator of any mine within the State shall fail, impede or refuse to permit such inspection, as is provided in Sections 11 and 12 of this Act, the Inspector, or deputy, may file his affidavit setting forth such refusal before the Judge of the _____ Court in the County in which said mine is situated, either during the term of the Court or during vacation, and obtain an order directed to such operator, so refusing as aforesaid, commanding him to permit and furnish all necessary facilities for the entering, examination or inspection of such mine, or to be adjudged to stand in contempt of court and punished accordingly.

Sec. 14. Records of Inspection.

It shall be the duty of the Inspector, or any deputy, after every inspection made of any mine or parts of any mine, as provided in this Act, to enter forthwith in a book to be kept at the mine, and designated as the "Record of Inspection," the portions of the mine so inspected, the nature of such inspection, and every illegal defect observed in the state and condition of the mine, machinery and appliances; but nothing contained in or omitted from such entry shall limit or affect the duty and obligation of the owner or operator of such mine under this Act. Such "Record of Inspection" shall be open at all reasonable times to the examination of the Inspector, or any of his deputies, or to the examination of any persons employed in the mine.

Sec. 15. Complaints to Inspectors.

Whenever the Inspector receives a complaint in writing, signed by three or more persons employed in a mine, setting forth that the mine in which they are working is being operated contrary to law, and is dangerous in any respect to the health or lives of those employed therein, the Inspector must in person, or by deputy, examine such mine as soon as possible. The names of the persons making such complaint shall be kept secret by the Inspector, unless permission to disclose them be expressly granted by the persons making the complaint. Provided, however, that such complaint shall, in all cases, set forth the alleged violation of law observed, the nature of the danger existing at the mine, and the time when such violation and danger was first observed. If after such inspection, the Inspector finds the conditions, in his opinion, dangerous to the health and lives of those employed therein, by reason of any violation of any of the provisions and rules of this Act, he shall serve, or cause to be served, a notice, setting forth fully the facts upon which his opinion is based, upon the operator or any person having charge of such mine, as provided in Sec. 12 of this Act, and shall thereafter take such steps to remedy such danger and to compel compliance with the provisions and rules of this Act, as the Inspector could take in any case arising under Sec. 12 of this Act.

It shall be the duty of the Inspector or any deputy to forward every such original complaint, so received, to the office of the Inspector of Mines, where it shall be indexed and filed among the official papers of the Inspector of Mines.

Sec. 16. Accidents.

Whenever a serious accident occurs in or about any mine, notice thereof shall be given promptly in writing, to the Inspector by the Superintendent or other person having immediate charge of the work at the time of the accident. The words "serious accident" shall be construed to mean, for the purpose of this Act, accidents resulting in such injuries as, in the opinion of an accredited physician, may result in the injured person being incapacitated from work for at least 14 days. Upon receiving such notice the Inspector, or a deputy, shall, if feasible, and if the nature of the accident shows it to be necessary, proceed to the scene of the accident with all convenient speed and investigate fully the cause of the accident, and shall file the result of such investigation as a report in the office of the Inspector, within 20 days thereafter. Whenever the Inspector, or a deputy, cannot proceed as above to the scene of the accident, the person in charge of the mine shall be so informed by the Inspector, and such person in charge must secure sworn statements of those who witnessed the accident, or if no one was present at the time of such accident, he must secure the sworn statement of those first arriving upon the scene; such statements must give, as far as possible, the details of the accident, the facts leading up to it and its probable cause; such sworn

statements shall immediately thereafter be sent to the Inspector, who shall file same in his office, as a public record.

Sec. 17. Loss of Life.

Whenever loss of life occurs from accident in or about a mine, and when death results from personal injury, the Superintendent or other person having immediate charge of the work at the time of the accident shall give notice to the Inspector, promptly after knowledge of death comes. Whenever possible, the Inspector or a deputy shall be present at every coroner's inquest held over the remains of a person killed in or about a mine. An inquest held by the coroner upon the body of a person so killed shall be adjourned by the coroner for not more than _____ days at the request of the Inspector. If the Inspector or any of his deputies are not present at such inquest, the coroner in such case shall notify the Inspector or his deputy intending to be present, in writing, of such adjourned inquest, and the time and place of holding the same at least five days previous thereto. Due notice of an intended inquest to be held by the coroner shall be given by the coroner to the Inspector, and at such inquest the Inspector and any Deputy Inspector shall have the right to examine and cross-examine witnesses, and such examination shall be part of the records of such inquest. If, at any inquest held over the body or bodies of persons whose death was caused by an accident in or about the mine, the Inspector or any deputy be not present, and it is shown by the evidence given at the inquest that the accident was caused by neglect or by any defect in or about the mine, or because the mine was operated contrary to the provisions of law, which in the opinion of the jury requires a remedy, the coroner shall send notice in writing to said Inspector of such reported neglect or default; and the said Inspector shall immediately take steps to have an investigation made of the same. The coroner before whom such an inquest is held shall promptly file with the Inspector of Mines a copy of the testimony taken therat and a copy of the verdict rendered by the Coroner's Jury.

Sec. 18. Inspector to Forward Papers to Prosecuting Officer in Certain Cases.

Whenever, in the opinion of the Inspector of Mines, a serious fatal accident, in or about any mine in this State, shall have been caused by failure on the part of the operator or any employee of such mine, or by any other person or by any of them, to observe the provisions of this Act, it shall be the duty of such Inspector to cause a copy of the report of such accident, or a copy of the testimony taken at the corner's inquest together with the verdict of the coroner's jury, and all papers in his hands relating thereto, to be forwarded to the prosecuting officer of the County in which the accident or loss of life occurred, together with an accompanying statement of the Inspector, showing in what particular or particulars he believes the law to have been violated and if upon the receipt thereof the prosecuting officer of the said County deems the facts to make a prima facie cause of action against any party, he shall present such evidence to the Grand Jury and take such further steps for the criminal prosecution of such operators, employees, or other person, as may seem advisable.

Sec. 19. Statistical Reports of Mine Inspector.

It shall be the duty of the Inspector of Mines within three months after January 1st in each year, to make a report directed to the Governor and Legislature of this State, giving a statistical summary and report of the work of the Inspector and Deputy Inspectors of Mines during the previous year ending December 31st. Such report shall contain a statement showing the number of men employed in each mine in the State, stating separately the number of men employed above ground and underground,

the number and nature of fatal and serious accidents occurring in each mine, the number of inspections made, complaints filed, inquiries attended, mines ordered to be vacated, violations found and any other information deemed important and relevant by the Inspector of Mines, together with such recommendations as in the judgment of the Inspector of Mines are necessary or desirable to the carrying out of this Act and to insure the safety of the workmen employed within the mines, subject to the provisions of this Act. Copies of such report shall be published and distributed by and at the expense of the State as a public document.

Sec. 20. Removal of Inspectors and Deputy Inspectors.

Upon a petition signed by at least 100 miners, or 10 operators, or by three operators each employing 100 men underground, setting forth that the Inspector, or any deputy, neglects his duties as prescribed in this Act, or that he is incompetent, and unqualified for the office of Inspector, or deputy, as the case may be, under this Act, or guilty of malfeasance in office, or guilty of any unlawful act tending to the injury of miners or the operators of mines, it shall be the duty of the Court of _____ of the County wherein such Inspector or Deputy Inspector resides, to issue a citation in the name of the State to the said Inspector, or said Deputy Inspector, to appear upon not less than 15 days' notice, on a day fixed, before said Court, and the Court shall then proceed to inquire into and investigate the allegations of the petitioners. If the Court shall find that said Inspector, or Deputy Inspector, so petitioned against, is neglectful of his duties, as prescribed in this Act, or that he is not qualified under the provisions of this Act for such office, or that he is incompetent to perform the duties of his office, or that he is guilty of malfeasance in office, the Court so finding any or all of such facts, shall certify the facts so found to the Governor of the State, in the case of such finding against an Inspector, and to the Inspector of Mines, in the case of such finding against a Deputy Inspector, and the Governor or Inspector, as the case may be, shall declare the office of Inspector or such Deputy Inspector vacant, and steps shall forthwith then be taken to appoint a properly qualified person to fill such vacant office of Inspector or Deputy Inspector, as the case may be, for the remainder of the unfilled term of the removed official.

The cost of said investigation shall be borne by the removed Inspector or Deputy Inspector, but if the allegations in the petition are not sustained, the costs shall be paid by the petitioners.

Sec. 21. Care of Injured.

It shall be the duty of operators, Superintendents or any one in charge of any mine where 10 or more men are employed, to keep at the mouth of the drift, shaft or slope, or at such other place about the mine as may be designated by the Inspector, a stretcher and a woolen and waterproof blanket, in good condition, for use in carrying any person who may be injured at the mine. Where more than 200 persons are employed, two stretchers and two woolen and waterproof blankets shall be kept. And at all mines a supply of antiseptic gauze, carbolated vaseline, sponges, soap, carbolic acid, tablets of bichloride of mercury, linseed oil, bandages, suitable towels and a wash basin shall be kept readily accessible for the treatment of anyone injured. Provided, that in all mines where 500 or more men are employed, a First Aid Corps must be organized, consisting of the foreman or foremen, shift bosses, timekeepers and other employees, designated by the Superintendent; and it shall be the duty of the operator or Superintendent of the mine to cause the organization of such; and to procure the services of a competent surgeon or physician to instruct the members of such First Aid Corps from time to time, not less than once in each calendar year, in the proper handling and treatment of injured persons before the arrival of a physician.

Sec. 22. Mine Maps.

The operator of every mine, employing 10 or more men underground, shall make and maintain, or cause to be made and maintained, by a competent Mining Engineer or Surveyor, an accurate map of the workings of such mine. At least once in every six months, or oftener, if necessary, the operator or Superintendent of each mine shall cause to be shown accurately on the map of said mine, all the excavations made therein during the time elapsed since such excavations were last shown on said map, and all parts of said mine, which were worked out or abandoned during said elapsed period of time shall be clearly indicated on said map, and all underground workings shall be surveyed and mapped before they are allowed to become inaccessible. Such maps shall, at all times, be open to the examination of the Inspector of Mines or any of his deputies.

Sec. 23. Failure to Make Map. Remedy.

Whenever any operator or Superintendent of any mine employing more than 10 men underground, shall neglect or refuse to make such map of the workings of any such mine, for a period of three months after the receipt of written notice so to do by the Inspector, or by any deputy, or fails at least once in every six months to add or cause to be added to such map all excavations made within said period, then and in either of such events the Inspector is hereby authorized to cause a correct survey and map of such mine to be made at the expense of the operator thereof, the cost of which shall be recoverable at law from said operator as other debts are recoverable by law. The amount advanced by the Inspector for making any map, as provided in this section, shall be considered as part of the expenses of his office and shall be paid as such.

Sec. 24. Storage of Inflammable Material.

It shall be the duty of the operator or Superintendent of each mine to store, or cause to be stored, oils and other dangerously inflammable materials in a covered building, kept solely for such storage, which building shall be at least 100 feet from any other building and at least 300 feet from any powder magazine. The man in charge of such building, who shall be the Superintendent, or a person expressly designated by him, shall permit only sufficient oil or other inflammable material to be taken from such buildings to meet the requirements of one day. If any oil or gasoline storage be so situated that leakage would permit the oil or gasoline to flow within the above specified distance, means to prevent such flow must be provided.

Sec. 25. Storage of Explosives.

No blasting powder or any high explosive containing nitroglycerine shall be stored in any mine. Provided, that nothing in this section shall be construed to prevent the operator of any mine from keeping sufficient blasting powder or other high explosive within such mine to meet the estimated requirements of such mine during the succeeding 24 hours; and provided, further, that such temporary supply shall not be kept at any place within such mine, where its accidental discharge would cut off the escape of miners working therein.

All blasting powder, or other high explosive, in excess of the temporary supply required in such mine shall be stored in a magazine placed not less than 300 feet distant from any shaft, adit, habitation, public highway, public railway, or from the boundary line of any mining property; provided, however, that in cases where the location of any mining property makes it impossible to comply with the provisions of this section, the Inspector may grant permission in writing to the operator of such mining property to place such magazine in some other place on such mining

property, if, in the opinion of the said Inspector such location shall not be dangerous to the safety of those employed within such mine.

Every magazine where powder or other high explosive is stored as provided in this section, shall be ventilated; and if it be a building above the surface of the ground it shall be provided with a lightning conductor supported on a vertical post standing clear of such magazine, and not nearer than 18 inches from one of the walls thereof and rising at least six feet above the highest point of such magazine; such lightning conductor shall be carried to a properly laid earth plate, set in the ground at a depth below the permanent moisture line of the ground and at a distance of at least one foot outside of the foundation walls of said magazine.

It shall be the duty of the operator to enforce the carrying out of this section and any failure on the part of said operator so to do shall be deemed a violation of this Act.

Sec. 26. Marking of Explosives.

It shall be unlawful for the operator or Superintendent of any mine to permit the use within such mine of any explosive containing nitro-glycerine unless there shall be plainly printed or marked, in the English language, on every original package containing such explosive the name and place of business of the manufacturer of such explosive, together with the date of its manufacture.

Sec. 27. Superintendent to be Appointed.

The operator of every mine, within the provisions of this Act, shall appoint a man who shall be personally in charge of the mine and the carrying out of the work done therein, who shall be designated as the "Superintendent"; provided, however, that nothing herein contained shall prevent the owner or operator of any mine from, personally, filling the office of "Superintendent."

The Superintendent of every mine shall inspect, or cause an inspection to be made by some competent person or persons appointed by him, of all mining appliances, boilers, engines, magazines, shafts, shaft houses, underground workings, roofs, pillars, timbers, explosives, bell ropes, speaking tubes, telephones, tracks, ladders, dry closets and all parts and appliances of said mine in actual use, and any such person or persons appointed by the said Superintendent shall at once report any defects therein to the Superintendent. It shall be the duty of the Superintendent upon ascertaining any such defects to take immediate steps to remedy the same so as to make the same comply with the provisions of this Act; and he shall, forthwith, notify the operator of said mine of the existence of such defects. It shall be the duty of the Superintendent to appoint a competent man to have full charge, under the direction of said Superintendent, of every magazine containing explosives situated on such mining property; and to make such other appointments and perform such other duties as are provided by this Act to be performed by such Superintendent.

Sec. 28. Mine Foreman. Appointment.

The operator or superintendent of every mine, within the provisions of this Act, shall appoint a man who shall be personally in charge of the carrying out of the underground workings of the mine, and who shall personally direct the work of the men employed underground therein, who shall be designated as the "Mine Foreman"; provided, however, that nothing herein contained shall be construed to prevent the superintendent of any mine from also filling the position of Mine Foreman. No person shall be appointed to the position of Mine Foreman who shall not be at least 21 years of age, and shall not have had at least two years of practical experience as an underground miner in metalliferous mines, and who

shall not be able readily to read and write the English language. Any operator or superintendent failing to make such appointment of Mine Foreman, or neglecting or failing immediately to appoint another in his place, in the event of said Mine Foreman vacating or losing his position from any cause, shall be guilty of a misdemeanor. Such appointment shall be made in writing, and it shall be the duty of such operator or superintendent to keep posted notice of such appointment or reappointment, immediately after the same shall have been made, in at least two conspicuous places about said mine, and notices of such appointment, or any reappointment shall be mailed immediately thereafter to the inspector of mines.

Sec. 29. Duties of Mine Foreman.

The Mine Foreman shall attend personally to his duties in the mine, as provided in this Act, and shall see that the regulations provided herein for securing the safety of all men employed in such mine are carried out; he shall immediately report to the superintendent of the mine, or in the absence of the superintendent to the mine operator, any violations or infringements of this Act observed by him within the mine, and shall take immediate steps to remedy the same. He shall warn all employees of danger to life or limb observed by him within the mine, and permit no person to work in an unsafe place unless for the purpose of making it safe; and shall supervise the miners in the carrying out of their work.

Sec. 30. Blasting.

Gang bosses shall be in immediate charge, and responsible for blasting within the mine. It shall be their duty to see that no iron or steel tools shall be used for tamping, and all miners are hereby forbidden to use iron or steel tools for such purposes under penalty of a misdemeanor. It shall be the duty of the Mine Foreman to fix the time of all blasting and firing. Gang bosses and miners about to fire shots shall cause warnings to be given in every direction, and all entrances to the place or places where charges are to be fired shall be guarded while such firing is going on. Failure on the part of gang bosses or miners to comply with the provisions of this section shall be deemed a violation of this Act. The number of shots exploding, except in cases of electric firing, shall be counted by the miner firing same. If said miner be not certain that all the shots have exploded, no one shall be permitted to enter the places where such charges were placed for a period of 30 minutes after the fuses were lighted. Such misfire, occurring at change of any shift, shall be reported to the Mine Foreman, Shift Boss and to the miner of the following shift.

In the event of shots fired by electricity, then it shall be unlawful for any person knowingly to enter the vicinity of the mine where such shots are fired until the cable of the firing battery has been disconnected; it shall be the duty of the Gang Boss or miner in charge of the shot-firing to see that all such cables are disconnected immediately after such firing, and to examine, or direct the examination of such place where shots are fired, before any men are permitted to work therein. All miners shall immediately report to the Gang Boss, Shift Boss or Mine Foreman the finding of any loose wires under or in the rock loosened by such firing; and in such event the Mine Foreman, or in his absence the Shift Boss, or Gang Boss, shall at once order work to cease until such wires have been traced to their terminals. It shall be the duty of the Mine Foreman to see that no current of higher than 250 volts shall be used when firing by electricity.

It shall be unlawful for any miner to extract or attempt to extract explosives from a hole which has once been charged, but in every such case a fresh charge shall be inserted above the missed explosive, and the same shall be then detonated. It shall be unlawful for any miner to

deepen holes, or any part of holes, left standing or abandoned, and theretofore charged with explosives.

Sec. 31. Hoisting Engineer.

It shall be the duty of every Superintendent of every mine having a hoisting engine to appoint and designate one or more men, who shall be able to speak and read the English language readily, to be known as Hoisting Engineers. At all shafts where men are hoisted or lowered such hoisting engineers shall be not less than 21 years of age, and at shafts where men are not so hoisted or lowered they shall be not less than 18 years of age. It shall be the duty of every Superintendent to appoint as Hoisting engineers men who are familiar with the details and working of a hoisting engine, and to permit no one, other than such duly appointed Hoisting Engineers, to run such engine or hoisting machinery, except that by and with the consent of the Superintendent specified apprentices may be taught the operation of the hoisting engine at such times and under such restrictions as the Superintendent may determine to be free of risk to life and limb. Any Superintendent failing to make such appointment of Hoisting Engineer, or knowingly appointing any Hoisting Engineer not qualified as above, shall be guilty of a violation of this Act.

Sec. 32. Duties of Hoisting Engineer.

The following rules shall be observed by every Hoisting Engineer employed within this State:

Rule 1. It shall be the duty of every Hoisting Engineer to keep a careful watch over his engine and over all machinery under his charge.

Rule 2. He shall at all times be in immediate charge of his engine, and shall not at any time delegate any of his duties to any other person, except to apprentices, duly designated as provided in this Act; provided, however, nothing herein contained shall be construed to prevent any Hoisting Engineer delegating to or sharing his duties with any other duly appointed Hoisting engineer, or turning over the engine and machinery in his charge to any other such engineer at the end of his shift.

Rule 3. He shall familiarize himself with and use all signal codes for hoisting and lowering as directed to be used in this Act.

Rule 4. He shall not run his engine unless the same is properly provided with adequate brakes, indicators, and distance marks on hoisting ropes or cables, as provided in this Act.

Rule 5. It shall be the duty of the Hoisting Engineer to exclude every person from his engine room, excepting any person or persons whose duties require their presence therein, and visitors authorized by the Superintendent of the mine.

Rule 6. He shall hold no conversation with anyone while his engine is in motion, or while attending to signals.

Rule 7. He must run his engine with extreme caution whenever men are on the hoisting cage.

Rule 8. He shall not hoist men out of, or lower men into, any mine or shaft at a speed greater than 800 feet per minute.

Rule 9. He shall inspect all hoisting machinery and safety appliances connected therewith, and all ropes and hoisting apparatus, when and as directed by the Mine Superintendent, and shall report to him any defects found therein.

Rule 10. After any stoppage of hoisting for repairs, or for any other purpose exceeding in duration one hour, he shall run a cage or other conveyance, unloaded, up and down the working portion of the shaft at least once, and shall not permit the cage or other conveyance to be used until the hoisting machinery and shaft are found to be in safe condition.

Rule 11. He shall do no hoisting in any compartment of a shaft while repairs are being made in the said hoisting compartment, excepting such hoisting as may be necessary to make such repairs.

Rule 12. He shall familiarize himself with and carry out the requirements of Rules 7, 8, 9, 10, 11, 12, 19 and 20 of Sec. 37 of this Act.

Rule 13. Any Hoisting Engineer or any person having in charge the hoisting machinery connected with the mine who shall wilfully violate any of the provisions of this section, or any of the rules contained therein, or who shall wilfully violate any of the provisions of Rules 7, 8, 9, 10, 11, 12, 19 and 20 of Sec. 37 of this Act, shall, upon conviction, be deemed guilty of a violation of this Act and liable to punishment accordingly.

Rule 14. The Superintendent shall post a copy of this section and the last preceding section in a conspicuous place on the door of the engine house.

Sec. 33. Hoisting Ropes.

It shall be unlawful to use in any mine, included within the provisions of this Act, any rope or cable for hoisting or lowering either men or material, when such hoisting or lowering is done by any means other than human or animal power, unless such rope or cable shall be composed of iron or steel wires, with a factor of safety determined as hereinafter set forth; provided, however, that such iron or steel wires may be laid around a hemp center.

The factor of safety of all such ropes or cables shall in no case be less than five, and shall be calculated by dividing the breaking strength of the rope as given in the manufacturers' published tables, by the sum of the maximum load to be hoisted, plus the total weight of the rope in the shaft when fully let out, plus 10 per cent of such values, to take account of shock at starting and stopping.

It shall be unlawful to use any rope or cable for the raising or lowering of men, either when the number of breaks in any running foot of said rope exceeds 10 per cent of the total number of wires composing the rope, or when the wires on the crown of the strands are worn down to less than one-half their original diameter, or when the superficial inspection provided for in this section shows marked signs of corrosion.

All ropes must be superficially inspected once in every 24 hours by some competent person designated for that purpose by the Superintendent, and it shall be the duty of the Superintendent to cause an examination to be made once in every succeeding three months of a section of such rope or cable, then in use for hoisting and lowering men and materials in such mine. If upon any inspection such hoisting rope or cable is found to be below the requirements set forth in this section, it shall be disused for such purpose forthwith, and any operator or Superintendent using or permitting the use of such hoisting rope or cable for the purpose of hoisting or lowering men thereafter, shall be guilty of an offence against this Act.

Sec. 34. Cages for Hoisting Men.

It shall be unlawful for the operator or Superintendent of any mine to permit the hoisting or lowering of men through a vertical shaft deeper than 300 feet, unless an iron-bonneted safety cage be used for hoisting and lowering of such men, but this provision shall not apply to shafts in process of sinking.

It shall be the duty of the operator or Superintendent to have all cages used in such shafts, over 300 feet deep, and in which men are hoisted and lowered, to be constructed as follows: The bonnet shall be of two steel plates, 3-16 inches in thickness, sloping toward each side, and so arranged that they may be readily pushed upward to afford egress to persons therein, and such bonnet must cover the top of the cage in such a manner as to protect those on the cage from objects falling in the shaft. The cage shall be provided with sheet iron or steel side casing, not less than one-

eighth inch thick, or with a netting composed of wire not less than one-eighth inch in diameter, and with doors made of the same material as the side casing, either hung on hinges or working in slides. These doors shall extend at least four feet above the bottom of the cage and must be closed when lowering or hoisting men, except timbermen riding on the cage to attend to timbers that are being lowered or hoisted. Every cage must have overhead bars of such arrangement as to give every man on the cage an easy and secure hand-hold. Every cage or skip used for hoisting men must be provided with a safety catch of sufficient strength to hold the cage or skip with its maximum load at any point in the shaft in the event that the hoisting cable should break. The Inspector or his deputy must see that all cages and skips are equipped in compliance with this paragraph, and that on all cages the safety catches are kept well oiled and in good working condition.

Any operator or Superintendent of any mine failing to comply with the provisions of this section, within 90 days after its passage, shall be guilty of an offence against this Act.

Sec. 35. Boilers and Connections, Machinery, Etc., Inspection.

All boilers used for generating steam in and about mines shall be kept in good order, and the owner, operator or Superintendent shall have them examined and inspected by a qualified person, not an employee of said operator, as often as once in six months, and oftener if the Inspector or his deputy shall deem it necessary. The result of such examination, under oath of the person making such examination, shall be certified in writing to the Inspector within thirty (30) days thereafter.

It shall be the duty of the operator to provide each battery of boilers with a safety valve of sufficient area for the steam to escape and with weights or springs properly adjusted; and to provide every boiler house with a steam gauge properly connected with the boilers, to indicate the steam pressure, and another steam gauge shall be attached to the steam pipe in the engine house. All steam gauges shall be placed in such position that the Engineer or Fireman can readily examine them and see what pressure is carried. All steam gauges shall be kept in good order, and shall be tested and adjusted as often as once in every six months and their condition reported to the Inspector in the same manner as the report of boiler inspection.

All machinery used in or about the mine, such as engines, wheels, screens, shafting and belting shall be protected by covering or railing so as to prevent persons from inadvertently walking against or falling upon the same. The sides of stairs, trestles and dangerous plank walks in and around the mines shall be provided with hand and guard railing to prevent persons from falling over the sides. This section shall not forbid the temporary removal of a fence, guard rail or covering for the purpose of repairs or other operations, if proper precautions are used, and the fence, guard rail or covering is replaced immediately thereafter. It shall be the duty of the operator to carry out the foregoing provisions of this section, and failure to comply with the provisions of this section shall be deemed an offence against this Act.

Sec. 36. Prohibited Employment of Women and Children in Mines.

No woman or girl, and no boy under the age of 16 years, shall be employed or permitted to work within any mine within this State, included in the provisions of this Act; and it shall be unlawful for any operator to employ such persons within such mine. Before any boy shall be permitted to work in any mine he must produce to the operator, Superintendent or Mine Foreman thereof, an affidavit made by the parent, guardian or next of kin of said boy, duly verified, containing a statement that he, the said boy, is at least 16 years of age.

Any person who violates and does not comply with the provisions of this section is guilty of an offence against this Act.

Provided, however, that nothing in this section contained shall be construed to prevent the employment of women, or children under 16 years, in clerical or office positions in the offices or buildings connected with such mine.

Sec. 37. Rules.

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The following general rules shall be observed in and about every mine within this State to which this Act applies:

Additional Duties of Mine Foreman and Assistant Mine Foremen.

Rule 1. The operator or Superintendent of every mine shall use every precaution to insure the safety of the workmen in the mine in all cases, whether provided for in this Act or not, and shall place the underground workings thereof and all that is related to the same under the charge and daily supervision of a competent person, who shall be called "Mine Foreman."

Rule 2. Whenever a Mine Foreman cannot personally carry out the provisions of this Act, so far as they pertain to him, the operator or Superintendent shall authorize him to employ a sufficient number of competent persons to act as his assistants, who shall be subject to his orders, and shall be known as "Assistant Mine Foremen," and they shall be under the direct supervision of the Mine Foreman and shall carry on the duties of the Mine Foreman as directed by him, and as prescribed in Sec. 29 of this Act.

Rule 3. The Mine Foreman shall have charge of carrying out or directing the carrying out of his duties as prescribed in Sec. 29 of this Act; and any Superintendent who shall direct or cause a Mine Foreman to disregard the provisions of this Act shall be amenable in the same manner as the Mine Foreman.

Rule 4. The Mine Foreman shall see that all dangerous places are properly fenced off and proper danger signal boards are so hung on such enclosures that they may be plainly seen.

Candles.

Rule 5. No candle shall be left burning in a mine or any part of a mine when the person using the candle departs from his work for the day.

Fire Fighting Helmets.

Rule 6. The operator or Superintendent of a mine employing more than 50 men underground shall provide, and keep in a readily accessible place, at least two fire fighting helmets, to be used in case of emergency.

Cages.

Rule 7. At all mines where hoisting is done by cage or skips from two or more levels a man shall be employed, whose duties shall be to load and unload the cage or skip and to give all signals to the hoisting engineer. The Superintendent is responsible for the enforcement of this rule.

Rule 8. Any person riding upon any cage, skip or bucket that is loaded with tools, timber, powder or other material, except for the purpose of assisting in passing such material through a shaft or incline, and then only after a special signal has been given, shall be guilty of a violation of this Act.

Rule 9. When tools, timber or other materials are to be lowered or hoisted in a shaft, their ends, if projecting above the top of the bucket, skip or other vehicle, shall be securely fastened to the hoisting rope or to the upper part of the vehicle, and all tools, timber and other materials loaded upon a cage must be securely lashed before being lowered or hoisted.

Hoisting While Shaft Sinking.

Rule 10. In no case shall a cage, skip or bucket, or other vehicle, be lowered directly to the bottom of the shaft when men are working there; but such cage, skip or bucket or other vehicle must be stopped at least 15 feet above the bottom of such shaft until the signal to lower further has been given to the hoisting engineer by one of the men at the bottom of the shaft; provided, however, that this rule shall not apply to shafts of less than 50 feet in depth.

Deepening Shaft. Protection.

Rule 11. Persons engaged in deepening a shaft in which hoisting from an upper level is going on shall be protected from the danger of falling material by a suitable covering extending over the whole area of the shaft, sufficient openings being left in the covering for the passage of men, a bucket or other conveyance used in the sinking operations. It shall be the duty of the Superintendent of the mine to enforce this rule, and failure so to do shall be deemed a violation of this Act.

Rule 12. No hoisting shall be done in any compartment of a shaft while repairs are being made in that compartment, excepting such hoisting as is necessary in order to make such repairs.

Rule 13. Whims in use at or in mines shall be provided with a suitable stopper, or some other reliable device, to prevent running back of the bucket or other conveyance.

Hooks.

Rule 14. No open hook shall be used with a bucket in hoisting. Safety hooks only shall be employed.

Crossheads.

Rule 15. All shafts more than 300 feet deep, from which hoisting is done by means of a bucket, must be provided with suitable guides, and in connection with the bucket there must be a crosshead traveling upon these guides. The height of the crosshead shall be at least two-thirds of its width. If the crossheads be a type that is not secured to the hoisting rope, a stopper must be securely and rigidly fastened to the hoisting rope at least seven feet above the rim of the bucket.

Signals.

Rule 16. Every shaft, if exceeding 50 feet in depth, shall be provided with an efficient means of interchanging distinct and definite signals between the top of the shaft and the lowest level and the various intermediate levels from which hoisting is being done. The signalling apparatus shall be a cord or wire actuating a knocker, bell or whistle, which may be supplemented by a speaking tube, or telephone, or an electrical system.

Rule 17. Special care must be taken to keep the signalling apparatus in good order.

Punishment for Interference With Signals.

Rule 18. Any person who shall interfere with or impede any signalling in the mine within this State, or who shall knowingly damage any such signal system, or who shall knowingly give or cause to be given any wrong signal within the mine, or who shall ride upon any cage, skip or bucket at a time when signals have been given informing the hoisting engineer that no person is so riding shall be guilty of a violation of this Act, and shall be punished accordingly.

Signal Codes.

Rule 19. The following signals shall be used: One bell, hoist (when engine is at rest); one bell stop (when engine is in motion); two bells, lower; three bells, men on cage about to ascend or descend; four bells, blasting signal. Upon receiving the blasting signal of four bells the engineer must answer by raising the bucket a few feet and letting it back slowly, and then upon receiving the signal of one bell he shall hoist the men away from the blast.

Rule 20. Special signals in addition to the above may be used in any mine, provided they are easily distinguishable by their sound, or otherwise, from the foregoing code and do not interfere with it in any way.

Rule 21. An easily legible copy of the above code, and of any special code adopted in any mine, shall be printed on a board or metal plate not less than 18 inches by 18 inches, and shall be securely posted in the engine room, at the collar of the shaft and at each level or station. The Superintendent of the mine shall be held responsible for the carrying out of this rule.

Timbering.

Rule 22. The timbers in all manways in daily use shall be cleaned of all loose rock lodged upon them at least once in every 24 hours. Manways in daily use shall be kept clear of obstructions.

Fencing Disused Shafts.

Rule 23. The mouth of every shaft or entry to a mine which for the time being is out of use, or is used only as an airway, and the approach to every open working other than ordinary prospecting trenches, and all elevated and exposed platforms and gangways, shall be kept securely fenced or otherwise protected.

Abandoned Shafts.

Rule 24. All abandoned shafts or other abandoned excavations shall be securely covered or fenced; provided, however, that in the case of abandoned open cuts fencing only shall be required.

Penalty for Destroying Fences and Coverings.

Rule 25. Any person who shall wilfully remove, injure or destroy all or any part of any coverings or fences provided for in Rules 23 and 24 of this section shall be guilty of a violation of this Act and shall be punished accordingly.

Lighting.

Rule 26. Stationary lights shall be provided during the working hours at all stations at vertical and inclined shafts during the time the same are in actual use; and also at all stations on the levels where hoisting or hauling is effected by means of machinery; and also at night at all working places on the surface, and at the head of any shafts not fenced or covered.

Rule 27. All places where hoisting, pumping or other machinery is erected, and in the proximity of which persons employed in the mines are working or moving about, shall be so lighted that the moving parts of such machinery can be clearly distinguished.

Manholes.

Rule 28. In every mine in which mechanical haulage is employed there shall be at intervals of not more than 100 yards, on each main haulage way, places of refuge, affording a space of at least two and one-half feet in width between the widest portion of the car or train running on the tramway and the side of the gallery.

Rule 29. Every manhole and place of refuge shall be kept constantly clear, and no refuse shall be placed therein, and no person shall in any way prevent access thereto.

Machinery and Protection.

Rule 30. All exposed machinery which when in motion would be dangerous to persons coming in contact therewith shall be securely guarded by a fence or railing. All electrical conductors shall be placed so as to protect any persons, so far as is possible, from coming into contact with the same.

Rule 31. No electrical current higher than 250 volts shall be carried by any naked wire in any mine.

Protection Against Water.

Rule 32. No raise shall be allowed to approach within 10 feet of any portion of a winze, stope or other opening in which there is a dangerous accumulation of water, unless such winze or stope be first unwatered by bailing or pumping or by means of a bore from the raise.

Rule 33. When advancing a drift, adit level or incline toward a mine working that is suspected to be filled with water, a bore hole must be

kept at least 20 feet in advance of the breast of the drive; and also if necessary in directions laterally from the course of the drive. Such a working place must not exceed six feet in width and such additional precautionary measures shall be taken as may be deemed necessary to obviate the danger of a sudden breaking through of water.

Rule 34. In every mine, where in the opinion of the Inspector of Mines, there is danger of a sudden inburst of water, such additional raises, drifts, or other workings shall be constructed as are necessary in the opinion of the Inspector to ensure the escape of workmen from the lower workings.

Ladders and Ladderways.

Rule 35. The space between the rungs of a ladder shall not exceed 12 inches.

Rule 36. The rungs of a ladder shall in no case be less than three inches from the wall of the shaft, or any opening in which it is used.

Rule 37. Every ladderway constructed and fixed in a vertical shaft more than 100 feet deep which may be used for the ascent and descent of persons working in the mine shall have substantial platforms at intervals of not more than 20 feet and the inclination of any ladder or section of a ladder shall not exceed 80 degrees from the horizontal.

Rule 38. All platforms except for an opening large enough to permit the passage of a man shall be closely covered.

Rule 39. Ladders shall project at least three feet above every platform in the ladderway and at least three feet above the collar of the shaft, unless hand rails are fixed at such places.

Rule 40. In ladderways not exceeding 100 feet in depth, ladders may be fixed vertically; over this depth no vertical ladders shall be used.

Rule 41. Under no circumstances shall any ladder inclining backward from the vertical be installed.

Rule 42. Ladderways shall be provided in all shafts in the course of sinking to within such a distance from the bottom thereof as will secure them from damage by blasting, but from the end of which ladderways chain or wooden extension ladders shall be extended to the bottom of the shaft.

Enforcement of Rules 37 to 42.

Rule 43. It shall be the duty of the Superintendent to enforce the carrying out of Rules 35 to 42, and his failure so to do shall constitute a violation of this Act.

Passageway Around Shaft.

Rule 44. All stations or levels shall have a passageway around or through the working shaft so that crossing over the hoisting compartment may be avoided.

Sumps.

Rule 45. All sumps shall be securely planked over.

Stopes.

Rule 46. In stopes timbered with square sets, the working floors shall be closely and securely lagged over. Lagging shall be long enough to reach clear across the caps.

Winzes or Raises.

Rule 47. Winzes or raises shall not be started in the direct line of a drift, but shall be offset from the drift.

Rule 48. The opening of such offset winze shall be protected by a fence or guard rail not less than three feet or more than four feet in height above the level of the drift.

Rule 49. Existing winzes opening directly from the floor of a drift or stope must be kept covered by a substantial hatch, or planking, except

when in use, at which time passage to persons other than those working at the winze shall be barred off by a substantial rail across the roads of access to the openings.

Shaft Station.

Rule 50. At all shaft stations a gate or a guard rail not less than three feet or more than four feet above the floor, must be provided and kept in place across the shaft, except when cage, skip or bucket is being loaded, but this prohibition shall not forbid the temporary removal of the gate or rail for the purpose of repairs or other operations, if proper precaution to prevent danger to persons be taken.

Top of Shaft.

Rule 51. The top of all shafts shall be protected by a gate, so that persons or foreign objects cannot fall into the shaft.

Rule 52. If hoisting be done from greater depth than 100 feet, by means of a bucket, shaft doors must be constructed that will prevent any material from falling into the shaft while the bucket is being dumped.

Hoisting Ropes.

Rule 53. Every rope used for hoisting or lowering men or materials shall be securely fastened to its drum and when in use shall **never** be fully unwound, but at least one full turn shall remain on the drum.

Rule 54. The further end of the rope shall either be securely fastened within a tapered socket, or else it shall be bound around an oval thimble and then fastened to itself by not less than 12 clamps or bolts.

Rule 55. Every rope shall be treated with oil or some suitable rope compound at least once every month. Such compound must be chemically neutral, and must be of such consistency as to penetrate the strand and not merely cover the surface of the rope.

Explosives and Fuses.

Rule 56. Every mine thawing in excess of a daily average of 100 pounds of dynamite shall be provided with a separate building for that purpose.

Rule 57. Dynamite shall not be thawed by any means other than a steam bath or a hot water device, and such thawing device shall not be allowed to become hotter than can be borne by the naked hand.

Rule 58. It shall be unlawful to thaw dynamite by placing it near a fire or steam boiler.

Rule 59. It shall be unlawful to thaw dynamite in a steam bath by using live steam.

Rule 60. It shall be unlawful for any person knowingly to distribute frozen dynamite to any person working in any mine.

Rule 61. No explosive shall be taken into any mine except in a securely covered case.

Rule 62. Detonators shall not be transported in the same vehicle or carried in the same case with dynamite or other explosive.

Rule 63. No fuse shall be used in any mine that burns faster than one yard in eighty seconds or slower than one yard in one hundred seconds.

Rule 64. It shall be unlawful for any person to use within any mine any fuse unless the rate of burning be stamped by the manufacturer on the package containing such fuse.

Rule 65. Notice shall be posted at the entrance of every mine stating the rate of burning of the fuse used in such mine. The Superintendent shall be responsible for the carrying out of this rule.

General Rules.

Rule 66. No person in a state of intoxication shall be allowed to enter or loiter about a mine.

Rule 67. All employees shall inform the mine foreman or his assistant of the unsafe condition of any working place.

Rule 68. Wages shall not be paid on any premises used for the sale of intoxicating liquors.

Rule 69. No intoxicating liquors shall be taken into a mine.

Rule 70. Strangers or visitors shall not be allowed underground in any mine unless accompanied by the operator or an official of the mine, or by an employee deputized by such operator or official to accompany them.

Rule 71. Every mine employing more than twenty-five men shall maintain a suitably equipped wash room which shall at all times be open to the employees of the mine.

Rule 72. Each workman employed in the mine when engaged shall have his attention directed by the mine foreman to the general and special rules provided for in this Act.

Rule 73. Any person who does any act wilfully in violation of any of the rules as prescribed in this Act shall be guilty of a misdemeanor.

Sec. 38. Two Openings to Surface.

It shall be the duty of every operator of every mine within this State, excepting as hereinafter provided, to maintain at least two outlets to the surface from such mine; or an underground communicating passage way between every such mine and some other contiguous mine, so that there shall be at all times at least two distinct and available means of access to the surface to all persons employed in such mine or mines. Such outlets shall not be less than 50 feet apart and shall, if covered, be provided with separate and distinct and non-connecting houses on the surface.

Where two openings to the surface shall not have been provided as aforesaid, it shall be the duty of the Inspector of Mines to order in writing, served upon the operator or Superintendent of such mine, a second opening to be made without delay by the operator of said mine, and in the event of the operator of such mine failing forthwith to commence and prosecute the making of a second opening within twenty days after the service of said order, or in the event of the Inspector deeming any mine having but one such opening to be dangerous to the lives and health of those employed therein, it shall thereupon be the duty of such Inspector forthwith to institute an action for an injunction to close said mine, provided for in Section 12 of this Act.

Provided, however, that Section 38 of this Act shall not apply in the case of (A) New workings being opened for the purpose of making a communication between two or more shafts, or to any working for the purpose of searching for or providing ore; (B) Or to any mine in which one of the shafts or outlets has temporarily become unavailable for the persons employed in the mine, and in which every effort is being made by the operator of the mine to open such temporarily unavailable outlet, and provided the same is not, in the opinion of the Inspector dangerous to the life and health of those employed therein; and (C) Mines having workings of less than 100 feet in depth.

Sec. 39. Openings Through Contiguous Mines. All Communicating Outlets Between Contiguous Mines Shall Be Established By Agreement Between the Owners Thereof.

When communicating outlets have been established between contiguous mines, it shall be unlawful for the operator of either mine to close the same without the consent of both the contiguous operator or owner, and the Inspector of Mines.

Provided, however, that when such contiguous outlets have been established, each operator, unless it shall have been otherwise provided by agreement, shall pay a fair proportionate share of keeping such openings in such condition that men working in such contiguous mines may have access to the surface thereby.

Provided, further, that in the event of either operator desiring to abandon mining operations, the expense and duty of maintaining such communications shall devolve upon the party continuing operations and using the same.

In the event of failure or refusal on the part of one contiguous operator to keep such opening in safe condition, the other contiguous operator shall have access thereto for the purpose of repairing and maintaining the same. When operators of contiguous mines have, by agreement, established underground communications between said mines as escapement outlets for the men employed in both, it shall be the duty of each operator to cause such communicating outlets in each operator's mine to be inspected at least once in every twenty-four hours; and it shall be the duty of each operator to see to it, within their respective mines, that the same are kept clear of every obstruction to travel and that intervening doors, if any, shall be kept unlocked and ready at all times for immediate use.

Sec. 40. Provisions Affecting Mines Having But One Outlet.

In every mine within this State, where under the provisions of Section 38 of this Act but one outlet is required, and where a single shaft affords the only means of ingress or egress to persons employed underground, such shaft if more than 200 feet deep shall be divided into at least two compartments. One of said compartments shall be set aside and used exclusively as a ladder way. Whenever such ladder way compartment shall be covered by a non-fireproof building, it shall be the duty of the operator of said mine to cause said ladder way to be securely bulkheaded at a point at least 25 feet below the collar of the shaft; and below this bulkhead, if the shaft is situated upon a side hill, a drift shall be driven to the surface; if the shaft containing said ladder way be otherwise situated this drift shall be driven on a level to a safe distance, but in no case less than 30 feet beyond the walls of the building covering the main shaft, and from such point a raise shall be made to the surface. The said raise shall be equipped with a ladder way, and it, together with the drift connecting with the main shaft, shall be kept in good repair and shall afford an easy exit in the event of fire. A failure on the part of the operator of said mine to carry out or cause to be carried out the provisions of this Section shall constitute a violation of this Act.

Sec. 41. Outlets Not to Be Covered by Houses.

It shall be unlawful for the operator of any mine within this State, after the passage of this Act, to erect any structure over the shaft or outlet of any mine, except head frames necessary for hoisting from such shaft or outlet, and the hatch or door necessary for closing such shaft or outlet.

Provided, however, it shall be lawful to erect a housing of non-inflammable and fireproof material over such shaft or adit to protect the men working at such point. In the case of existing houses covering the mouths of shafts or adits, it shall be the duty of the Superintendent of the mine to cause the immediate removal of all inflammable material stored therein, and it shall be the further duty of such Superintendent to prohibit the storage of any inflammable material within thirty feet from the exterior walls of any such existing house or within a like distance from the walls of any housing hereinafter built under the provisions of this Section. A failure on the part of any such Superintendent to enforce the provisions of this Section relative to the storage of inflammable materials, shall be deemed a violation of this Act.

It shall be the duty of every operator to provide every adit, the mouth of which is covered by a house or building of any kind, with a door near the mouth of the adit, that can be closed from outside of the building by a pull wire or cable in the event of fire.

Sec. 42. Ladderways and Ladders.

It shall be the duty of the owner or operator of every mine to provide in addition to any mechanical means of ingress or egress, at least one means of outlet for the miners by means of ladders, from the lowest workings of the mine to the surface. All ladders and ladder ways, constructed after the passage of this Act, shall be built as prescribed in Rules 35 to 42 of Section 37 of this Act. All floors of setts in stopes and every shaft, winze, raise or incline steeper than 35 degrees from the horizontal through which men are obliged to pass, shall be provided with ladders and ladderways as specified in this Section.

Sec. 43. Ventilation.

The operator of every mine, whether operated by shaft, slope or drift, shall provide and maintain for every such mine a good and sufficient amount of ventilation for such men and animals as may be employed therein, and shall cause an adequate amount of pure air to circulate through and into all the shafts, winzes, levels and all the working places of such mine.

Sec. 44. Sanitation. Dry Closets.

It shall be the duty of the operator of every mine, for the purpose of improving the sanitation thereof, and preserving the health of those employed therein, to provide dry closets for the use of all men employed in such mines. At least one of such closets shall be placed on every level where an average of twenty-five or more men are employed, at any one time, and at least one such closet shall be provided for every twenty-five men employed within such mine. No dry closet shall be constructed without adequate provision for the effectual cleansing and removing of the contents thereof, which shall be removed and disposed of from time to time. It shall be the duty of the Mine Foreman to cause each dry closet to be supplied with some disinfectant or deodorizer to be sprinkled upon the contents thereof. It shall be the duty of all men employed within any mine where such closets are provided to use such closets exclusively when in the mine. Any operator of any mine who shall neglect or fail to provide closets, as required by this section, for use in any such mine, shall be deemed guilty of a violation of this Act.

Sec. 45. Roof Inspection.

In all mines where stoping is done by the opening of chambers, the roof thereof being supported only by the walls of the chambers, or by pillars, it shall be the duty of the superintendent of the mine to detail a competent man to make a frequent inspection of the roof of these parts of the mine where men are employed, and said man so detailed shall be charged with the duty of dislodging any slabs of rocks in said roof which have become loose. While such dislodgment is being effected, the floor of the stope immediately beneath such loose rock shall be fenced off or otherwise adequately guarded.

Sec. 46. Safety Pillars.

It shall be the duty of the owner or operator of every underground mine to leave standing on the inside of the boundary line of every mining property, safety pillars the width of which must not be less than 30 feet, measured at right angles from the said boundary line.

Provided, however, that on the application of either owner of adjoining mines, the Inspector may give permission in writing to either or both owners to weaken, cut through or work such pillars, if in the opinion of the Inspector the same will not be dangerous to the lives of those employed within either of said mining properties. Such consent, or a copy thereof, shall be filed in the office of the Inspector. The failure of the operator of either or both of such adjoining mining properties to observe the provisions of this section, shall be deemed a violation of this Act.

Sec. 47. Intoxicating Liquor Prohibited in Mines.

Whoever shall, while under the influence of intoxicating liquor, enter any mine, or any of the buildings connected with the operation of the same within this State, where miners or other workmen are employed, or whoever shall carry intoxicating liquors into the same, shall be deemed guilty of an offense against this Act, and upon conviction shall be punished accordingly.

Provided, however, nothing herein contained shall prevent the carrying of any alcoholic spirits of liquor into such mine or buildings for the purpose of administering to any one injured therein.

Sec. 48. Penalties.

Any wilful neglect, refusal or failure to perform the duties imposed and required to be performed by any section, clause, provision or rule of this Act, on the part of the parties or persons therein required to perform them, or the violation of any of the provisions or requirements thereof, shall be deemed a misdemeanor punishable by a fine not exceeding five hundred dollars, or by imprisonment for a period not exceeding six months, or both, at the discretion of the Court.

For any injury to person or property, occasioned by any wilful violation of this Act, or wilful failure to comply with any of its provisions, by any owner, operator or superintendent of any metalliferous mine or quarry within this State, employing at least ten men, a right of action shall accrue to the party injured for any direct damages sustained thereby, against said owner or operator, and in case of loss of life by reason of such wilful violation and wilful failure, as aforesaid, a right of action shall accrue to the widow and lineal heirs or adopted children of the person so killed, for a like recovery for damages for injury sustained by reason of such loss of life, not to exceed the sum of Five Thousand Dollars. Provided that all suits brought under this section shall be commenced within one year from the time any cause of action shall have accrued under this section, and not afterward.

Sec. 49. Copy of Act to Be Posted.

It shall be the duty of the superintendent of every mine within the provisions of this Act to post or cause to be posted, at all times, in the office of said mine and on a building or board in some conspicuous place at each entrance to the mine, a printed copy of this Act.

Any person who wilfully removes, injures or defaces any such printed copy, when so posted, shall be guilty of a violation of this Act.

Sec. 50. Repeal of Inconsistent Laws.

All laws or parts of laws inconsistent with the provisions of this Act are hereby repealed.

Sec. 51. Act to Take Effect.

This Act shall take effect on the _____ day of _____, 19—.

(N. B. At least ninety days after the passage of the Act, so as to prepare the miner and operator to the changed conditions.)

APPENDIX B.

FATAL ACCIDENTS IN AMERICAN METAL MINES.

The occurrence of fatal accidents in American metal mines has heretofore attracted less attention than the importance of the industry demands. It may be conservatively estimated that metal mining in the United States in 1910 employs approximately 150,000 persons, exclusive of salaried officials and clerks. The census report on mines and quarries for 1902 returned the number employed in metal mines at about 110,000, but it is doubtful whether the total number of wage earners was accurately enumerated for some of the mining States. The rapid progress of the industry during the intervening period makes it practically certain that the number

TABLE 1. NUMBER OF PERSONS KILLED BY ACCIDENT IN THE METALLIFEROUS MINES OF NORTH AMERICA, 1894-1908.

	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Colorado			97	110	108	103	107	121
Michigan—Dickinson County	6	14	10	11	9	19	27	
“ Houghton County	22	46	19	26	23	27	36	33
“ Marquette County				17	19	26	24	29
Missouri	17	23	13	16	29	27	52	41
Montana	27	41	64	52	48	49	47	35
Newfoundland—Copper							3	...
“ Iron and pyrites								1
Nova Scotia—Gold	1	2	1	4				1
Ontario—Silver and cobalt					1		1	...
“ Gold		2	1	2	11	10		...
“ Iron ore								3
“ Copper and nickel			1		2	3	7	9
British Columbia					6	16	13	14
United States	66	116	207	231	238	241	285	286
Canada		1	5	2	15	30	34	28
Grand total	66	117	212	233	253	271	319	314
	1902.	1903.	1904.	1905.	1906.	1907.	1908.	Total.
Colorado	82	67	101	109	82	77	64	1,228
Idaho		20	10	20	17	18	10	95
Michigan—Dickinson County	10	16	9	9	15	7	4	166
“ Houghton County	44	33	45	58	44	49	58	563
“ Marquette County	29	23	15	22	22	37	16	279
Missouri	14	17	30	49	58	42	46	474
Montana	47	39	41	48	52	42	21	653
South Dakota	13	8	...	8	7	6	6	48
Newfoundland—Copper	1	4	2	...	2	...	...	12
“ Iron and pyrites	5	2	1	6	1	...	...	16
Nova Scotia—Gold	1	...	...	1	6	2	...	19
Ontario—Silver and cobalt .....	...	1	...	...	2	15	24	44
“ Gold .....	...	2	6	...	...	...	3	37
“ Iron ore	3	3	...	1	2	...	3	15
“ Copper and nickel	7	2	1	6	3	4	15	60
British Columbia	12	15	14	14	17	20	21	162
United States	239	223	251	323	297	278	225	3,506
Canada	29	28	25	28	33	41	66	365
Grand total	268	251	276	351	330	319	291	3,871

employed at present is not much less than 150,000. The principal branches of metal mining in the United States, in the order of their quantitative importance, are iron, copper, gold and silver, lead and zinc, and quicksilver.

In 1902, before the copper industry had attained its present importance, the distribution of mine labor was as follows: 38,851 men employed in the iron mines; 36,142 in the gold and silver mines; 26,007 in the copper mines; 7,881 in the lead and zinc mines; and about 1,500 persons employed in the mining of quicksilver.

Need of Effective Legislation for Metal Mine Inspection.

For most of these industries the present information regarding the occurrence of fatal accidents is very limited and of more or less doubtful value. Official returns are available for only a few of the more important metal-mining States, but even for these the data, as a rule, are presented in the aggregate, and not with a due regard to the various branches of the metal-mining industry. The corresponding returns for the Canadian provinces are in greater detail, and they have therefore been included in the present discussion for the purpose of convenient comparison. While every effort has been made to make the returns complete, it has been impossible to secure the necessary data for South Dakota for 1904. No returns are available for the metal mines of California, Nevada, Utah, Arizona and a number of other States in which the industry is of sufficient importance to warrant official supervision of mining operations and the official publication of the essential facts regarding the industry.

Table 1 exhibits in detail for the several States and the Canadian provinces the number of fatal accidents in metal mines officially returned since 1894. For some of the States and provinces the information is available for only recent years, while for others the data are not available for the entire period. The lack of accurate information is not to the credit of the various States, which have been decidedly derelict in this matter. There are no satisfactory reasons why returns should be required to be made of the accidents occurring in the coal mines of Utah and not in the metal mines of that State, nor why there should be a complete absence of public interest in this matter on the part of such important mining States as California, Nevada and the Territory of Arizona. It is reasonable to suppose that the total of 3871 fatal accidents in metal mines reported as having occurred in the different States of the United States since 1894 is, therefore, a substantial understatement of the actual facts. In all probability not much less than 5000 deaths have occurred during the period covered by the table. In the Canadian provinces during the same period of time it is estimated that there have been about 500 deaths as the result of metal-mining casualties.

The incompleteness of the table, therefore, precludes an accurate summary account of mining fatalities for recent years. Upon the estimate that about 150,000 wage earners are employed in metal mining at the present time, and that the average fatality rate throughout the United States is not less than 3 per thousand, it is reasonable to assume that the total number of fatal accidents in American metal mines at the present time is not much less than 500 per annum.

Table 2 exhibits in detail the fatality rates for the various American States and Canadian provinces for the years for which the information is available. There are some reasons to believe, however, that the number of persons employed is overestimated for some of the States by the inclusion of men at work in ore milling, smelting and refining, without a corresponding inclusion of the fatalities occurring in this group of employees.

Fatality Rate in the United States.

The table shows that between 1894 and 1908 the fatality rate in the United States has varied from 4.79 per thousand in 1895 to 2.37 per thousand in 1908.

The rate was as high as 8.28 per thousand in metal mining in Montana in 1896; 7.79 per thousand in iron mining in Dickinson county, Mich.,

in 1901, and 6.53 per thousand in copper mining in Houghton county, Mich., in 1895; while the rate was as low as 1.45 per thousand for the metal mines of Montana in 1908. The information at present available is not sufficient for a precise differentiation of the accident liability according to the predominating metallic products of the different States. When the returns are combined for the different mining fields and assumed to represent the predominating branch of the mining industry, it would appear that the fatality rate in gold and silver mining as determined by the combined returns for Colorado, Idaho and South Dakota was 2.75 per thousand for the period considered, while the corresponding rate for lead and zinc mining in Missouri was 3 per thousand; for copper mining in Montana, 3.53; for copper mining in Houghton county, Mich., 2.94; and for the iron mines of the same State, 4.17 per thousand. Averaging the data for all the States, and for all the years for which information is

TABLE 2. FATAL ACCIDENTS IN METALLIFEROUS MINES OF NORTH AMERICA, 1894-1908.

Ratio of Persons Killed per 1000 Employed.									
	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	
Colorado .....	....	....	3.80	3.77	3.57	2.63	2.67	3.25	
Michigan—Dickinson county ..	....	3.02	5.57	4.63	4.45	3.13	5.91	7.79	
" Houghton county..	2.99	6.35	2.33	2.98	2.20	2.07	2.58	2.44	
" Marquette county..	....	....	....	4.09	4.33	4.60	3.62	5.58	
Missouri	3.36	3.70	2.65	2.51	3.81	2.46	4.49	3.73	
Montana	3.81	4.68	8.28	5.29	4.33	3.98	3.36	2.90	
Newfoundland—Copper .....	....	....	....	....	....	....	7.46	....
" Iron and pyrites. ....	....	....	....	....	....	....	....	1.05	
Nova Scotia—Gold .....	....	1.90	3.59	1.40	6.49	....	....	1.13	
Ontario—Silver and cobalt....	....	....	....	....	16.95	....	20.00	....
" Gold .....	....	....	10.58	2.33	3.45	18.00	13.33	....
" Iron ore .....	....	....	....	....	....	....	....	8.33	
" Copper and nickel...	....	....	2.06	....	3.14	3.58	4.85	3.94	
British Columbia .....	....	....	....	....	3.96	4.57	3.48	3.24	
United States	3.39	4.79	4.24	3.82	3.59	2.87	3.18	3.47	
Canada .....	....	1.90	3.69	1.11	4.28	5.91	4.13	2.85	
Grand total	3.39	4.73	4.22	3.74	3.63	3.04	3.26	3.40	

	1902.	1903.	1904.	1905.	1906.	1907.	1908.	Total.	
Colorado	2.33	2.08	2.86	3.18	2.36	2.33	1.96	2.80	
Idaho .....	....	2.86	1.67	3.33	2.43	2.57	1.83	2.47	
Michigan—Dickinson county.	2.54	4.00	2.95	2.80	4.30	2.06	1.64	4.01	
" Houghton county.	3.11	2.42	3.14	3.78	2.67	2.79	3.37	2.94	
" Marquette county.	5.26	3.83	3.73	4.35	3.77	5.49	2.98	4.32	
Missouri	1.23	1.37	2.20	3.93	4.38	2.79	2.88	3.00	
Montana	3.41	2.75	2.83	3.27	3.47	2.71	1.45	3.53	
South Dakota	3.71	2.39	....	2.26	1.88	1.71	1.69	2.25	
Newfoundland—Copper	2.23	6.41	3.51	....	4.44	....	....	3.50	
" Iron and pyrites	4.92	1.83	0.71	4.36	0.63	....	....	1.93	
Nova Scotia—Gold	1.31	....	....	1.99	11.61	4.14	....	2.70	
Ontario—Silver and cobalt...	....	....	2.88	....	1.89	7.36	9.94	6.64	
" Gold .....	....	3.87	26.09	....	....	....	8.38	6.54	
" Iron ore	7.73	9.26	....	0.51	1.54	....	1.38	1.44	
" Copper and nickel..	4.04	1.39	0.94	5.11	1.84	2.19	8.71	3.57	
British Columbia	3.25	5.45	4.04	3.77	4.27	5.07	5.68	4.23	
United States	2.74	2.40	2.76	3.41	2.98	2.83	2.37	3.09	
Canada	3.29	4.13	2.77	2.79	3.07	4.11	6.08	3.78	
Grand total	2.79	2.52	2.76	3.35	2.99	2.85	2.69	3.14	

available, the fatality rate in metal mining in the United States has been 3.09 per thousand, which compares with 3.13 per thousand for the coal mines of North America during about the corresponding period of time.

Fatality Rate in Canada.

The average fatality rate for the metal mines of Canada during the same period was 3.78 per thousand. The average rate has been as high as 6.64 per thousand for the silver and cobalt mines of Ontario, and as high as 6.54 per thousand for the gold mines of that province. The average rate was lowest for the iron-ore mines of Ontario, or 1.44 per thousand, and as high as 3.57 for the copper and nickel mines of Ontario, and 3.50 per thousand for the copper mines of Newfoundland. The rate has been comparatively low for the iron and pyrites mines of Newfoundland, or 1.93 per thousand, while it has been above the average, or 4.23 per thousand, for the metal mines of British Columbia. Some of the extremely high rates for individual years, and particular mining fields, are due to the small number of men employed and do not indicate with accuracy the true occupation hazard of the industry. The information, however, apparently would seem to be sufficiently complete to warrant the conclusion that the average fatality rate in American metal mines, or 3.09 per thousand, is less by as much as 0.69 per thousand, than the corresponding rate for the metal mines of Canada, which is conservatively calculated at 3.78 per thousand.

Metal Mines vs. Coal Mine Fatalities.

It is made apparent by the preceding analysis that the fatal-accident liability in metal mining is certainly not much less than the corresponding accident liability in coal mining. It is quite possible that if the subject were thoroughly inquired into and if all doubtful data were eliminated, it would be shown that the fatal-accident liability is really greater in metal mining than the corresponding liability in coal mining. In this connection it has been pointed out by E. T. Corkill*, Ontario Inspector of Mines, that:

"In metalliferous mining an accident seldom occurs in which a considerable number of men are killed, the fatalities usually being one or two at a time, though in the course of a year they may amount to a large total. Public opinion is, therefore, not aroused; the management of the mine is not so much impressed with the importance of careful supervision; the miners are awakened for a few days, and then forget, and the same conditions prevail as before. It is a common belief among most metal miners that the fatalities in coal mines far exceed those in metalliferous mines. This is a great mistake, and, while it is not proposed to argue that metal mining is as hazardous a calling as coal mining, still the writer desires to impress upon all metal miners that only care and close supervision of their work will lessen the number of accidents and place metalliferous mining on the list of the less hazardous occupations."

Comparisons of International Statistics.

International comparisons have their inherent limitations, but they serve the useful purpose of bringing into contrast at least the apparent differences in conditions which may demand further inquiry and qualified research. Where the liability to error is as serious as in the case of mining-accident statistics, due to the absence of information, or varying methods of reporting casualties according to the degree of seriousness, an international comparison may be seriously misleading. But, subject to this caution, the following rates are included for the principal mining countries of the world. The rates, with few exceptions, are for the period 1899-1906 and they have been derived from the annual reports of the Chief Mine Inspectors of the United Kingdom.

*Eighteenth Annual Report of the Bureau of Mines of Ontario.

Algeria, chiefly iron mines, average rate 1.38 per thousand.

Austria-Hungary, iron mines, 1.48; other metal mines 3.11 per thousand.

Bohemia, iron mines, 1.67; other metal mines 0.81 per thousand.

Bosnia and Herzegovina, iron mines, 1.84; other metal mines, 0.82 per thousand.

Belgium, metal mines, 0.75 per thousand.

France, metal mines, 2.02 (for men working underground the rate was 2.49 and for men working overground, 0.92 per thousand).

Germany, ore mines and smelting works, 1.07; Prussia considered separately, 1.08, and Saxony, 0.81 per thousand.

Italy, metal mines, including sulphur, 1.73. In Italy the fatal-accident liability in sulphur mines alone during the 10-year period ending with 1899 was 2.84 per thousand.

Japan, metal mine (1903-1906), 1.50 per thousand.

Portugal, metal mines, 0.95; but for underground workmen alone the rate was 2.15 per thousand.

Spain, chiefly metal mines, but including some coal mines, 2.65 per thousand.

Russia, gold mines (1901-1903), 0.55 per thousand.

United Kingdom, metalliferous mines, 1.14; but underground workmen alone, 1.67, and workmen overground 0.39 per thousand.

New South Wales, alluvial gold mines, 0.54; gold quartz mines, 0.87; silver and lead mines, 2.49; copper mines, 1.22; tin mines, 0.83 per thousand. (In the Broken Hill district the percentage of cases of lead poisoning averaged during the decade 1897-1906, 0.32, but the ratio was as high as 1.12 per cent in 1902).

Tasmania, metal mines (1901-1906), 1.19 per thousand.

Queensland, gold mines, 1.70 per thousand.

Victoria, gold mines, 1.08 per thousand.

Western Australia, gold mines, 2.15 per thousand.

British Guiana, gold mines, 0.28; alluvial placer gold mines in 1895, 8 per thousand.

Kimberley, diamond mines (white miners only), 1.36; underground workmen considered alone, 5.28; and workmen above ground, 0.47; colored miners, only, 3.60; workmen underground, only, 7.27, and above ground, 1.71 per thousand.

South African Republic (1895-1898), white miners, 5.41; colored miners, 4.44; total, 4.56 per thousand.

Ceylon, metalliferous and plumbago miners, mostly the latter, 0.37; underground, 1.01; overground, 0.07 per thousand.

Gold Coast, gold mines (1898, 1903-1906), 2.41; workmen underground, 6.03; overground, 0.54 per thousand.

India, gold mines, 2.24; underground, 3.23; overground, 0.70 per thousand.

India, mica mines, 0.75; underground, 1.18; overground, 0.13 per thousand.

India, manganese (1901-1906), 0.37 per thousand.

India-Mysore, gold mines, 2.51 per thousand.

New Zealand, alluvial gold mines, 1.53; quartz gold mines, 1.32 per thousand.

Transvaal (1902-1906), gold mines, white labor, 4.15; colored native labor, 4.74; Chinese labor, 6.50 per thousand.

It requires no further discussion to emphasize the practical importance of a qualified inquiry into the whole subject of fatal accidents in metal mining corresponding to the amount of public attention which is being given to the occurrence of fatalities in coal-mining operations. The same neglect of metalliferous mines is characteristic of English mining legislation, which has never been as effective in the case of metal mines as in that of coal mines. There can be no question of doubt but that a qualified inquiry would bring to light many facts of great practical importance, and there can be no excuse for the derelict mining States of the far

West, which at present give no publicity whatever to the facts of accident occurrence in the metal mines of their respective States.

FREDERICK L. HOFFMAN.

Newark, N. J., March 1, 1910.

PRESIDENT BUCKLEY: We will listen to the announcements now by the Secretary.

SECRETARY NORMAN: I have here Resolution No. 34, introduced by Mr. Hershey of Los Angeles, and which reads as follows:

Resolution No. 34.

(By C. K. Hershey of Los Angeles, California.)

Whereas, The Government of the United States is investing many thousands of dollars in irrigation schemes for the purpose of developing the agricultural resources of this country for the benefit and general welfare of the people, and

Whereas, The development of the great mineral resources of our country are as necessary and as essential to the general welfare of all people as is the development of the agricultural resources, and,

Whereas, There are many thousands of acres of mining ground containing millions of tons of ore that would add millions of dollars to the wealth of our nation if developed, and

Whereas, It is a well known fact to every mining man that these millions of tons of gold, silver, copper and lead ores are not brought to the surface and added to the wealth of our country because of unfair, unjust and robber methods of the Smelter Trust, which discourages and makes unprofitable by its methods of extortion, the development of thousands of mining claims,

Therefore, Be it resolved that this Congress take such measures as will have for its ultimate object the establishment of government smelters in the principal mining districts and smelt ores at a small margin above cost and thus lend encouragement to one of the principal industries of our nation.

PRESIDENT BUCKLEY: Are there any other resolutions to be introduced at this time?

We will now take up the continuation of the order of this morning—a discussion of the substitute resolution reported by the Committee on Resolutions. This is the substitute for Resolution No. 10 read this morning by the Secretary. Are there any further remarks on this resolution?

H. FOSTER BAIN of San Francisco: Mr. President, I think we were all much interested this morning in the eloquent account of the mistakes of the Babylonians, but I think some of us would be somewhat interested in considering some of the mistakes of the present day and some of the possible mistakes of the future. I am perfectly frank to admit that I am in favor, for the present, of some form of leasing system as applied to coal and other mineral lands. I am also frank to admit that I recognize I am distinctly in the minority on the subject and that the only thing we can hope to achieve is a little discussion and perhaps to get together on some of the facts in regard to the matter.

The gentleman who reviewed the subject this morning seems to be unfortunate in having only known of recent cases where the system did not work out well.

It might also be interesting to note that the State of Colorado has a leasing system for its mineral lands. In considering, also, the case of the leasing of the lead lands of the Mississippi valley, which I happen to be personally a little familiar, there is one thing

which should be brought out. We would infer from the remarks made this morning that the leasing system discouraged prospecting. Historically, that is not so with regard to the leasing of mineral lands in the Mississippi valley. I know all of those lands. I know the history of that incident perfectly, and discovery went ahead just the same at the time as it did before or after. The prospector was just as free then as he ever was, and he did go onto those lands and make his discovery and his rights were recognized and he was protected in them. I am free to admit that the system did not work out as well as it might, but the reason was that it happened there as it has happened elsewhere in the United States that a great deal of land had been classified as agricultural which was not agricultural. Now, if any further extension of the leasing system is adopted we may have the same difficulty. But it was not because of any fault or injustice inherent in the leasing system, but because of mistake in the classification of the land that it was unsatisfactory.

Furthermore, the gentleman has done one good thing for us—he has made perfectly clear the fact that the leasing system is not an experiment, nor is it a new thing. I would invite your consideration of the recent cases where the leasing system is in operation today in the United States on a large scale in mineral lands and is perfectly satisfactory—and I refer to the State of Missouri. The president of this Congress is perfectly familiar with conditions there, and I am sure he will bear out the statement that the leasing system as practiced in the Joplin district does not discourage the prospector. It must be upon terms which are satisfactory to him and make development not only possible but profitable. The greater part of the zinc produced in this country is obtained from lands which are under lease, and it is the provisions of the leasing system making it possible for the small man as well as the big man to work on terms of advantage to him which commend it to me.

Another phase of the subject is worthy of consideration. We all admit the present condition is unsatisfactory. We all want to do justice, and want to avoid tying things up for the future in such shape that justice cannot be done. The leasing system makes it possible in the future to go to work on a new basis and under new conditions. If you have once passed the fee over to a man that is not possible, unless you condemn and purchase back. It is that which makes it possible to go right ahead with our exploration at present on terms which are satisfactory to each man.

Now, there is another phase of the subject which has not yet been brought out, and which I want to mention. This morning one gentleman said we hear a great deal about this power of the trusts. Now we people in the West know nothing about anything of that kind, we know of no difficulties of that kind or any restraint of trade. I will cite you a particular instance in the State of Colorado, the United Hydro Power Company, which operates in Georgetown, Colorado, and has a contract with the Central Colorado Power Company, which regulates prices and does other things of that sort. You hear a great deal about the danger of central control of these things. How about the danger that is in the hands of the directors of great corporations? (Applause.)

MR. G. W. HULL, of Arizona: Mr. President, Members of the American Mining Congress, Ladies and Gentlemen: It gives me pleasure to be with you again. One year ago I stood upon your platform outlining plans for the Congress, which I see have been carried forward. It we are going to take a position now in support of this so-called conservation proposition we are likely to down the interests that we have come here to promote—the mining interests of the West and of the United States. Are we going to down the interests of the men who have fought and worked and prayed and who have developed the western country, by throwing this game upon them and saying

they must do as we want them to do? Give them the old way and let them work and let the country progress. The country has been brought to the front by the miners of the West—of Colorado, of Arizona and of Utah. (Applause.) I have fought for the rights of man; I have fought for the rights of the miner, and I am here to fight for his interests today. He is the man who has built your fine buildings and sent the nation to the front ranks, and now shall we down him and say that we will give up to rabid conservationists?

MR. WRIGHT, of Nevada: Mr. President and Gentlemen: Before I begin the discussion of this resolution I want to raise a question of personal privilege, if you please Mr. Chairman. I was appointed by the Board of County Commissioners of Clark county, Nevada, as delegate here, and also by Mr. Dickerson as delegate-at-large from the State of Nevada. It seems to me I ought to be entitled to twenty minutes. Can I have fifteen?

PRESIDENT BUCKLEY: I want it understood, gentlemen, that it does not make much difference whether you have two or three or four appointments, I think each speaker, no matter what his position is ought to try to restrict himself to ten minutes. If there is more time after we have gotten all round and no one else wishes to speak we will go around again and give you another chance.

MR. WRIGHT: Gentlemen of the Convention, I wonder how many there are here this afternoon that have camped out on the desert and have prospected and located mines and helped to discover the sources of original wealth. I have slept under the daggers and I have camped on desert sands when there was nothing between me and death but the hot water in the canteen. Ever since the Midwives of Egypt were instructed by Pharaoh to strangle the male children of the Israelites, lest they crowd them out of the land, it has been the cry of political shepherds that everything is going to the Styx. It is not true. Gentlemen of the Convention, there is more coal today within reach of easy transportation than ever before in the history of the world. We are not in danger of freezing to death for lack of coal. Again, there are more forests and more uncut lumber today where the railroad can reach it than has been cut since the days of Columbus. Why this particular solicitude on the part of the dear people at present? It seems to me it comes as the cry of the political shepherds who want to make something out of it on their own account. (Applause.)

What are the facts in regard to this convention? Let us just go over a few of the questions. This question of the leasing system: As I said before; I have been two and one-half years in the sagebrush swamps of southern Nevada, and I have my stake, so 'tis not a personal matter with me, but I want to see the other fellow have a fair chance. I have talked with these men by the scores and hundreds and I have failed to find a single miner yet who believes that this leasing system ought to obtain. (Applause.) Mr. Pinchot said plainly here, and I thank him for the statement, that the proposition was to lease the oil and the forests and the mineral lands and hold them in perpetual lease from the government to the people. Why didn't he go on and say the agricultural lands as well? Why not? Why discriminate? Why urge class legislation against the miner and in favor of the agriculturalists? They already charge us more for our land than anybody else in the United States has to pay. The agriculturist gets his land at \$1.25 to \$2.50 an acre and we have to pay about \$35.00. We have to pay \$5.00 an acre for 20 acres, and that makes \$100, and then, we have to do \$100 worth of work each year for five years before we can get it patented, and there is \$500. Then count up your surveys and the expenses of the publication of notices, etc., for patent, and it costs \$35.00 to \$40.00 an acre for all the land that we get, and now they propose to go to work and say you never can own this land. I say to you, gentlemen, there is not a man that is out in the desert today

that cares to go out and prospect and discover mines simply that he may lease them. They say that it is because monopoly would get hold of it. Why is it not just as easy for the monopolists to buy up the leases as it is to buy up the land itself?

I want to talk just a few minutes on this question of state regulation. In the first place, I believe it is right that the state should control in this matter just as far as is compatible with the spirit of the Federal statute, and I think if there is anything to be done in the way of Federal legislation to safeguard the interests of the miner we ought to repeal some of our Federal statutes on this question. In the second place, the governors and legislatures and the state boards of the various states are in closer touch with the miners and the mining interests of the respective states, and are more familiar with the oil and mineral lands therein contained, and they know better than a coterie of men back there in Washington can possibly know what is needed. They understand the spirit and temper of the Western people who have developed our resources and who have brought us through the difficulties of the early stages of development, and have brought us down to where we can do something and let us not now go to work and strangle them in the hour of their birth. If all this power is to be centralized in the Federal Government it is practically a one-man power. The Secretary of the Interior would have, very largely, the control and the say in regard to this question. Gentlemen, if we get a man in there who is a failure, it is an absolute failure for four years, but if this thing is given into the control of the governors of the various states, forty-eight of them in the United States, or fourteen or fifteen of them in the Western states, if we get two or three failures among them the other twelve or thirteen will prove successful, and so we cannot ever possibly have more than a partial failure, and then only for two years.

Now, I say, let the governors of the Western states step in—we have fourteen or fifteen of them here in the West—and let them get together on these conservation questions once a year and study these questions and act upon them in the interests of the mining industry and the oil industry.

Let me say in summing up, that if the time shall ever come when the uplifting hand of a majestic people shall be firmly and uncompromisingly set against every form of graft and corruption and banish these evils from the face of the earth—if that day shall ever come, then I think it may be safe to centralize the control of our natural resources in the executive and interior department at Washington, but until that day does come I believe state control and state regulation and free lands to prospect on is the only wise and radical course that is before us.

I thank you. (Applause.)

JUDGE RAY, of Nevada: Mr. President, Ladies and Gentlemen and Members of the American Mining Congress: I do not know that I can talk to you in such eloquent language as we have been listening to. I am nothing but a hobo prospector, but my blood is boiling now. Now, I come from the old state of Nevada that has produced—and every word that I say, go to your statistics and see if you cannot find it out—the old state that has produced one billion, four hundred and forty millions of dollars, the old state that excited the known world, old Virginia city, with her production of eight hundred and sixty millions (applause), and on down the line those old men of Virginia City—Mackey, Flood and O'Brien. Oh, think of it, my friends, when you talk across the Pacific ocean you are utilizing the wealth that Nevada has produced; when you walk up Fifth Avenue in New York City you see the mansions built on each side that Nevada has produced; when you go over to Paris you see it again. When you go to San Francisco, nine out of ten of the sky scrapers in the city of San Francisco were built out of Nevada money. And now these old prospectors who have traversed this desert from the Mexican line to British Columbia, who

have found all the mines on this Western slope that have produced the money that fills the channels of commerce, are you going to say to them now, "You will have to sit down and starve to death; we cannot let you prospect any more?" I say no! I say no! We have come to a time, old prospectors, when we have got to stand up and let our voices be heard. The old laws that were introduced by Senator Stewart, who stood in the United States Senate for thirty-two years, are good enough for me; I do not need any more. They have enabled me to make money and to lose it (laughter), and for the last six months, and for the last three years I have been working to make it again, and I have got where I can make it. I am on a forest reserve, thank you, and I am going to make it right there, and I am going to be protected by the laws of this country and Mr. Pinchot and nobody else can keep me from it, because we have the laws and we are going to stand by what is right, and we are not going to do anything wrong. (Applause.) Those laws have been made for us, and, thank God, they were made for us long ago. Conservation? There is not a man here—and I see many gray headed men—but what his mother taught him from the time he was three years old until he was ten years old all the conservation they can ever teach us in the next hundred years. If she did not she was not a good mother.

Now, gentlemen, when we come down to it, when you heard the other day of the great oil industry, the great coal industry, the great copper industry and the great iron industry of this country, that goes in alliance with the gold and silver industries of the country, but there are only two men in the United States that produce a dollar. Just two men. Now somebody will say: "He is wrong." I will prove it to you. The only two men that ever produce a dollar in the United States is the gold miner and the silver miner. Now, you say, what about the farmer, the copper miner, the iron miner? For example, you bonded your city not over two years ago to bring a great water system two hundred and fifty miles from the Owens river down here that will cost you twenty millions of dollars. When you signed up those bonds the most important paragraph in them was: "This twenty million dollars to be paid in United States gold coin." When you signed up those bonds every six months there was to be interest paid on those bonds, and those coupons say: "Payable in United States gold coin." They do not say they will take a trainload of oil, a trainload of oranges, a trainload of prunes, a trainload of peaches or anything else except gold coin. (Applause.) If Mr. Clark sells one million dollars worth of copper to China he doesn't say, "I will take so much tea, or so much fireworks," but he says, "I will take United States gold coin." You start from Los Angeles with a hundred thousand dollars worth of oranges to Omaha; I start with a hundred thousand dollars worth of gold ore to Omaha. You sell your oranges, and in six months they are eaten up; I sell my gold to that smelter and get my \$20 gold pieces, and they go down and down through the channels of commerce for time and time to come, and fifty years from now my hundred thousand dollars is expended in the construction of a great edifice, and it pays the carpenter and the miner and the hardware merchant and everybody else, but your oranges are eaten and gone and forgotten. (Laughter and applause.) The farmer starts to Chicago with a trainload of cattle. He sells them. No, he does not. When he goes in there a man inspects them before they go into the yard; they are inspected again before they go to the slaughter house, they are inspected again before they are shipped out, and when they reach Los Angeles they are inspected again before they will let you eat them. But in six months it is gone. My hundred thousand dollars worth of gold is performing its duty in the channels of trade every year and all of the time. The gold and silver miner is the only one that produces a dollar. (Applause.)

Now, when we get down to dividends, do you know, my dear friends, that sixty-seven per cent of all of the freight hauled on all

of the combined railroads of the United States is hauled for the mining industry? Do you know that the mining industry pays more dividends than all the railroads and all the combined banks of the United States? Now, I want to say to you fellows, for God's sake don't deal unfairly with that old prospector, who has made for you all that you now possess. (Applause.) I ask you as delegates to this Congress to come forth and lift your voices like the brave men that I know you are and say, "We will stop it." Do you mean to say that you are going to destroy the system that has made for us what we have got? I say no. Let us be men. Give me the forest reserves of this country, of the State of Nevada, for instance, where I am more familiar with them; give me those reserves and let me talk to the miner in those reserves for ten minutes and I will guarantee you there will be no forest fires there that will destroy it in three months, because he takes care of it. (Applause.) But turn it over to the sheep herder and he will burn it up.

As I said before—and I haven't much more time—those old mining laws that have been enacted, those old laws that were made for us—and I am speaking particularly to the old gray-headed men—those old laws that were dictated and given to us by Alexander Hamilton, George Washington, Thomas Jefferson, and such men as those, are we going to turn them down? Ain't they good enough for us? Or are we going to stand here and have a political cap pulled down over our eyes and go to sleep? Which are we going to do? It is up to us to do one or the other.

Now, as my friend from Arizona pointed out to you the stars on that flag the other day and said he would be glad to see the day when Arizona could be represented on that flag, the 21st star on that flag, what does it belong to? What does the twenty-first star on that flag represent? The grand old battle-born State of Nevada. And why was it called that? Because when you boys in blue marched into Washington Uncle Sam's currency was worth thirty-seven cents on the dollar and the gold and silver from Nevada paid you.

I thank you. (Applause.)

E. V. SMITH, of California: Mr. President, Ladies and Gentlemen, Members of the American Mining Congress: I just want a moment to correct what seems to be a misapprehension on the part of the gentleman who last spoke about the agricultural interests of this state and country not having produced any wealth. Now, to illustrate, take an orange grove. That orange grove has produced \$20,000 in good, hard cash; it is grown from the soil, from the roots of those orange trees, and it has added that much to the wealth of this country. I am "blowing in" about three or four thousand dollars a year in assessment work in gold and copper mines that have never produced a dollar yet. That is all I have to say. (Applause.)

PRESIDENT BUCKLEY: I appreciate that confession is good for the soul, but I would like to further request that the speakers kindly keep as close as possible to the questions before the house.

GENERAL SAMPSON, of Arizona: Mr. President, I rise merely to ask this question, or to make this suggestion: There were read this morning a dozen or more resolutions, and if we take up as much time for each of those as we are taking for this one we will not get away from here until the last of next week, and some method ought to be adopted whereby a fair division of time can be given to each of these resolutions.

PRESIDENT BUCKLEY: I wish to simply make the statement that from what I have heard here at this forenoon's session and this afternoon's session the addresses that have been made are of such a general nature that you can apply them to all of the resolutions, and I do not think it will be necessary for a gentleman who has spoken on

one of the resolutions to repeat what he said in the discussion of others. However, I trust you will confine yourselves as closely as possible to the question. I shall take the liberty very soon of calling you to order if you do not. Are there any further remarks on this question? If not, are you ready for the question?

Question called for.

PRESIDENT BUCKLEY: The Secretary will read the substitute reported by the Resolutions Committee for Resolution No. 10.

The substitute was read by Secretary, whereupon it was adopted with only one vote in the negative.

PRESIDENT BUCKLEY: The Secretary will please read the substitute for Resolution No. 12.

The substitute was read by Secretary.

MR. GEORGE W. E. DORSEY: Mr. President, I move the adoption of the substitute for the original motion, which has just been read. Seconded.

PRESIDENT BUCKLEY: The motion has been made and seconded that the substitute for Resolution No. 12, as read, be adopted. Are you ready for the question?

Question called for.

MR. DORSEY: I do not think it is necessary to say a word on this question, Mr. President.

Substitute for Resolution No. 12 was adopted unanimously.

PRESIDENT BUCKLEY: The Secretary will read the substitute for Resolution No. 22.

Substitute read by Secretary.

MR. DORSEY: I move the adoption of this substitute for resolution No. 22. Seconded.

PRESIDENT BUCKLEY: The motion has been made and seconded that the committee's substitute for Resolution No. 22 be adopted. Are there any remarks?

MR. G. W. HULL, of Arizona: Mr. President, I have been studying up this question in regard to the water powers of the country. We need them. We want to preserve the timber and the water powers will preserve the timber. We have the ocean here at our doors. Every inlet can be utilized to carry the electric current to your doors by building dams, as you build them on your streams to run the electric process. If we expect to save the coal of Alaska, the coal of this country, the timber of this country, we must see to it that proper legislation is secured with that aim in view. I say that we have to do something to save the timber, the coal, and if we can harness the waters and the powers of the ocean to do our work we will be moving on more grandly than we have ever moved before. (Applause.)

Question called for.

Substitute for Resolution No. 22 was carried unanimously.

MR. DORSEY: I now move, Mr. President, that the substitute for Resolution No. 25, which I will ask the Secretary to read, be adopted. Seconded.

PRESIDENT BUCKLEY: The motion is made and seconded that the committee's substitute for Resolution No. 25 be adopted. The substitute resolution will be read by the Secretary.

Resolution No. 25 was then read by the Secretary.

GOVERNOR J. J. GOSPER: Mr. President and Gentlemen: While it was my purpose to have spent at least the ten minutes assigned to the delegates to this convention upon the subject of conservation, the other gentlemen who have talked have spoken for me, as it were, by proxy.

Now, on this matter of conservation I approve of the position you have taken upon this subject. All my life, from a four-year old boy, I have lived in the West, even before the cars had reached Chicago. Westward had been my course, it seems, providential or otherwise—from Illinois to Nebraska ahead of the railroads, down into this city before the Southern Pacific had reached Los Angeles, over into Arizona ahead of the railroads, and for thirty-five years I have been a prospector and miner and promoter, and all that sort of thing, in connection with mining matters, and I want to say this much, and then I will sit down; I am irrevocably opposed to the government of the United States passing a law that will take one red cent out of the pockets of the hardy, daring prospector who has risked his very life lying at night upon the hot sands, tramping over the deserts under the burning sun of noonday, ever in danger of attack by wild beasts, and up in death valley, as many of you know, many a prospector has lost his life from hunger and thirst, and even before death has come to him, when he has given up, the wild beasts have come and eaten the flesh off his bones. I say the prospector, especially, who turns his back towards his friends where he was born and goes into the desert country to prospect for gold and silver and other minerals, is certainly entitled to great credit, and, in God's name, let us give it to him, and I am glad that this Congress has such excellent sense as to take the position in it that it has taken.

One other word and I will sit down. I am in favor of this government of the United States quit-claiming all its right, and title in and to every acre of land and every drop of water and every tree in the forests within the limits of all of the western states at this time, Mr. Chairman, and gentlemen, because we are here upon the ground and are capable of looking after these interests ourselves without the aid or assistance of Mr. Pinchot and his followers.

PRESIDENT BUCKLEY: Are there any further remarks upon this resolution?

Question called for.

The motion being put, the substitute for Resolution No. 25 was adopted.

A MEMBER: Mr. President: I have here a resolution which I desire at this time to introduce. I understand that your Committee on Resolutions has not yet reported upon the California oil situation. This is satisfactory, as far as I can learn, to the California delegation.

PRESIDENT BUCKLEY: The resolution will be referred to the Committee on Resolutions. The introduction of the resolution at this time is out of order, but we will accept it and have it referred to the committee and read later.

MR. DORSEY: Mr. President: I move the adoption of the substitute offered by the Committee on Resolutions for Resolution No. 24. Seconded.

PRESIDENT BUCKLEY: The motion is made and seconded that the committee's substitute for Resolution No. 24 be adopted. The Secretary will read the resolution.

The resolution was then read by the Secretary.

PRESIDENT BUCKLEY: This resolution is before you. Are there any remarks?

MR. HULL, of Arizona: Mr. President: I believe the Territories should be included in that.

MR. DORSEY: There are no Territories excepting Arizona now. You will be in the Union in a few days.

The motion being put to vote, the substitute for Resolution No. 24 carried unanimously.

MR. DORSEY: As to Resolutions Nos. 11, 13 and 16, we recommend to the Convention that they lie upon the table. Seconded.

PRESIDENT BUCKLEY: The motion is made and seconded that Resolutions Nos. 11, 13 and 16 lie upon the table. Are you ready for the question?

MR. DORSEY: I will explain, Mr. President, that those resolutions were repetitions of other resolutions acted upon, and the recommendations in those resolutions have been covered by other resolutions that have been offered.

MR. SAMPSON: We would like to have them read before we lay them on the table. It will take but a minute.

MR. DORSEY: They are quite lengthy, and I will state to my friend Sampson that we recommend what those resolutions ask for.

MR. SAMPSON: Do you certify them to be fully covered?

MR. DORSEY: Yes.

Motion to lay upon the table carried.

MR. DORSEY: I now call up Resolution No. 4, introduced by Mr. Mudd, and we recommend the adoption of the following substitute for that resolution.

The substitute was read by the Secretary.

MR. DORSEY: I move the adoption of the resolution. Seconded.

THE PRESIDENT: The motion is made and seconded that the substitution for Resolution No. 4, introduced by Mr. Mudd, be adopted. Are there any remarks?

The motion being put, the resolution was adopted unanimously.

The resolution will be found on page 173.

MR. DORSEY: We also recommend the adoption of Resolution No. 6, introduced by Mr. Mudd, and will ask the Secretary to read it. The Secretary read the resolution.

MR. DORSEY: I move the adoption of the resolution. Seconded.

PRESIDENT BUCKLEY: It is moved and seconded that the resolution be adopted as read. Are you ready for the question?

The question was put and the resolution adopted unanimously.

The resolution will be found on page 174.

MR. DORSEY: Your Committee on Resolutions reports back Resolution No. 18, introduced by Mr. Kerr of California, with the recommendation that it do not pass, and that the resolution be laid upon the table. I will ask the Secretary to read it.

The Secretary read the resolution, which appears on page 49 of this report.

MR. DORSEY: I move the adoption of the report. Seconded.

PRESIDENT BUCKLEY: It is moved and seconded that the report of the Committee on Resolutions on Resolution No. 18 be adopted,

the recommendations of the committee being that Resolution No. 18 be not concurred in. Are you ready for the question?

The motion carried, and Resolution No. 18 was laid on the table.

MR. DORSEY: Resolution No. 15, introduced by Mr. Mendels of New York. The committee has considered this carefully, while it is quite long, giving an abstract, showing how all companies attempting to float stock should report before offering their stock, and that they should give to the public the title in full, the location of the property, etc., etc. I will ask the Secretary to read that portion of the report that refers to what is required of those companies and leave out the other matter. It is simply a tabulation of what should be given us.

The resolution as read by the Secretary appears on page 177 of this report.

MR. DORSEY: Your committee recommends the adoption of this report, and I move its adoption. Seconded.

PRESIDENT BUCKLEY: The Committee on Resolutions has reported back Resolution No. 15 with the recommendation that it pass. Mr. Dorsey has moved the adoption of the resolution, which has been seconded. Are there any remarks?

The motion was put and carried unanimously.

MR. DORSEY: I have here Resolution No. 7, introduced by Mr. Ross of Illinois, which was referred to the Committee on Resolutions. After considering the matter we return it without favorable recommendation—we recommend that it do not pass. I will ask the Secretary to read the resolution.

The resolution as read by the Secretary appears on page 174 of this report.

MR. DORSEY: I move that the resolution be laid upon the table. Seconded.

PRESIDENT BUCKLEY: It is moved and seconded that Resolution No. 7, introduced by Mr. David Ross of Illinois, be laid upon the table. Are you ready for the question?

MR. DAVID EVANS: Mr. President: I understand this resolution to be practically along the line of a recommendation for an employer's liability act. I am in favor of such a law, but whether or not it relates specifically to mining is another proposition. I think it should be a general law that would cover that entire question. Now, this Congress might be misunderstood, if it turned this resolution down without explanation, and I simply rise for the purpose of making that remark, and if it is the intention of the Congress to turn down any proposition which looks toward the protection of employees and gives them the benefit of an employer's liability act, I shall vote against it. I have employed a great many men in my time, and I know the hazards of mining, and I believe that the point that is set forth in that resolution is a progressive one, one that should ultimately be adopted by the people of this country. I would oppose it as a special law relating to mining, but as a general law I would favor it. (Applause.)

MR. DORSEY: The point raised by Mr. Evans was in the minds of the committee when action was taken upon it. We have a general liability act of Congress that covers mining and everything else, and an employer's liability act, and we couldn't pass a resolution like this for the reason that it was not broad enough, and we thought the general act was sufficient that we already have. We would be petitioning Congress to do for miners what they have already done for everybody. Still, if it is the consensus of opinion of this Congress that we should reconsider this matter, I will be glad to have such a motion made, but

to make it a general act. But even then, we would be petitioning Congress for what has already been done and burdening our records with that matter. That is the point that was made by the opponents of the resolution in the committee.

MR. J. W. MALCOLMSON, of Missouri: Mr. President and Gentlemen: President Taft has told us that about conservation and a great many other things, we should get down to specific detail and not confine ourselves as we have been doing in the past to platitudes. I have been connected with the mining industry for a number of years, and during that time I have had the unfortunate experience of having a number of men killed. Now, in Missouri, where a man is killed in a mine the first thing that happens is that several lawyers run immediately to see that man's widow, and a suit is brought by one of those lawyers. The mining company may be to blame, or a fellow servant, or the man may be to blame himself. In most cases the death is a natural result of the operations of mining, as it is known throughout the world as a dangerous business. What happens is this: A suit is brought in court, and the courts, I think, throughout the United States are choked with these damage suits. The woman usually has to pay at least one-half, and very often she gets nothing at all. The verdict given is \$5,000. Very rarely the woman gets \$2,500. If she gets \$500 she is often very lucky, and if the verdict given is \$5,000, the woman ought to get \$5,000. Now, that is the finest kind of conservation, and the woman never gets it, and that, I think, is the saddest waste in the mining business, and I think this Congress should take a stand in this matter and should use its influence to see that the men whose lives are lost in the industry should have the amount paid to those dependent upon them conserved and not wasted in useless litigation. When you think of the widow of the miner—and you are all acquainted with cases of that kind, where, instead of getting the whole of the amount that is due to her she only gets half, or one-third, or one-fifth, or nothing at all—I think this Congress should take some stand on that point. Of course, the whole industry of the country is interested in this thing. It is just as important a thing in the railroad industry as it is in the mining industry, but it is only by the help of all of us that the advance of civilization can be carried on, and this affects the mining industry to such an extent that I think we should act in this matter to help the whole thing along. (Applause.)

MR. DORSEY: Mr. President, I ask the permission of the Congress to withdraw this resolution now and refer it back to the committee and make it general and specific in its terms, and will ask Mr. Malcolmson, who was formerly on the board of directors, to meet with the committee tomorrow morning at nine o'clock, and I will take up this resolution with him.

PRESIDENT BUCKLEY: If there is no objection this resolution will be re-referred to the Committee on Resolutions. The chairman of the Resolutions Committee wishes to withdraw his motion and have it re-referred. The resolution has been so re-referred to the Committee on Resolutions.

MR. FRANK G. TYRRELL, of California: We consent, with the distinct understanding that it comes back to us.

PRESIDENT BUCKLEY: It will come back to you.

MR. DORSEY: If you will appear before the committee tomorrow morning it will be the first matter I will call up. That is all of the resolutions I have to report from the committee at the present time.

GOVERNOR GOSPER, of California: Mr. President, it was understood this morning that the gentleman from Colorado was to finish or should have the privilege of closing the discussion upon this question.

PRESIDENT BUCKLEY: Mr. Potter will now have the opportunity to finish his remarks.

At this time Mr. Potter concluded his remarks which are found on page 309.

DR. HOLMES: Mr. President, I would like to have the gentleman state his authority for the statement that the government expected to exact twenty per cent on the value of the produce. In the case of the coal lands, which I happen to know a little about, the government is basing its valuation on about an average of a cent per ton for the coal in the ground. That is, with the coal in the western states, about one-half of one per cent on the value of the coal, which sells for \$2 or \$2.50 per ton at an average in the western states. Now, the difference between twenty per cent and one-half of one per cent is only about four thousand per cent. (Applause.)

MR. POTTER: I will say that my authority most recently is the statement published in the Los Angeles Times this morning as having been made by the President of the Forestry Association. (Laughter.)

DR. HOLMES: Mr. President, I do not rise to say one word in favor of the leasing system, but simply as a matter of personal privilege. A statement I made myself was the fact that a proposition was submitted of charging two cents, not twenty per cent, but two cents per ton royalty on the coal which should be leased from the government, as compared with ten cents per ton on coal on lands leased by certain private individuals and citizens in some other portions of this country.

With regard to the Appalachian Forest Reserve, I happen to be a sinner in that direction, as one of the original promoters of that movement for the establishment of the National Appalachian Forest Reserve. We have always not only discredited but refused to take any part in agitation looking to the purchase of those forests out of the proceeds of the sale of timber in any western state. (Applause.)

MR. PARKER: In some regions of the United States they are charging as high as seventy-five cents per ton royalty on coal on private lands.

PRESIDENT BUCKLEY: The discussion of these resolutions was closed before Mr. Potter took the floor. The resolutions were adopted and Mr. Potter was granted the floor simply as a courtesy. We will now listen to some resolutions which the Secretary has to read.

SECRETARY NORMAN: I have here Resolution No. 35, introduced by Mr. Utter of New Mexico, which I will read:

Resolution No. 35.

(By George H. Utter, of New Mexico.)

Resolved, That as the present low ebb of the mining industry is largely due to decreased prospecting as a result of the harassing restriction imposed upon prospectors in the Forest Reserve and recognizing the imperative necessity of restoring the protection against forest fires afforded by the presence of prospectors on the forest lands, we earnestly recommend legislation by Congress restoring to the prospector on Forest Reserves the privileges enjoyed on other parts of the public domain.

PRESIDENT BUCKLEY: We have before us the report of the Credentials Committee, which will be read by the Secretary.

SECRETARY NORMAN: The report is as follows:

REPORT OF CREDENTIALS COMMITTEE.

To The American Mining Congress, Thirteenth Annual Session, Los Angeles, Cal., September 26 to October 1, 1910:

We, your committee on Credentials, beg to report that we find the following entitled to participate in the Thirteenth Annual Session of the American Mining Congress, held in Los Angeles, Calif., September 26 to October 1, 1910, including all members of the American Mining Congress, members of the Mining & Metallurgical Society of America, and delegates appointed by the president, governors of states, commercial and scientific organizations and other organizations enumerated in the by-laws of the American Mining Congress, to whom appointive powers have been granted.

Respectfully submitted,

JAS. W. MALCOLMSON, Chairman,

C. B. McCOLLUM,

H. C. FREEMAN,

Credentials Committee.

Los Angeles, Sept. 29, 1910.

SECRETARY NORMAN: Then follows a list of some fifteen hundred or two thousand names, the reading of which may not be necessary at this time.

PRESIDENT BUCKLEY: Unless there is some special reason, why it should not be done we will dispense with the reading of the names of the delegates mentioned in this report. All those in favor of the adoption of this report will so signify by saying aye.

The report was adopted unanimously.

PRESIDENT BUCKLEY: We have this afternoon reports of three standing committees. These are important reports and should be handled this afternoon if possible. I will now call for the report of the Committee on the Standardization of Electrical Equipments in Coal Mines.

This report was read by Hon. Frank G. Tyrrell, of California, and is as follows:

REPORT OF COMMITTEE ON STANDARDIZATION OF ELECTRICAL EQUIPMENT IN COAL MINES.**Proposed Code of Rules for the Installation and Use of Electricity in Coal Mines.**

These rules are intended to apply to electrical installation in coal mines of the various states and territories, and include special rules and provisions governing electrical practices in gaseous mines.

Definitions.**POTENTIAL:**

The terms "Potential" and "Voltage" are synonymous and mean electrical pressure.

DIFFERENCE OF POTENTIAL:

The expression "Difference of Potential" means the difference of electrical pressure existing between any two points of an electrical system or between any point of such a system and the earth as determined by a volt meter.

POTENTIAL OF A CIRCUIT:

The potential or voltage of a circuit, machine or any piece of electrical apparatus is the potential normally existing between the conductors of such circuit or the terminals of such machine or apparatus.

(a) Where the conditions of the supply of electricity are such that the difference in potential between any two points of the circuit cannot exceed 300 volts, the supply shall be deemed a low voltage supply.

(b) Where the conditions of the supply of electricity are such that the difference of potential between any two points in the circuit may at any time exceed 300 volts but cannot exceed 650 volts, the supply shall be deemed a medium voltage supply.

(c) Where the conditions of the supply of electricity are such that the difference of potential between any two points in the circuit may at any time exceed 650 volts, the supply shall be deemed a high voltage supply.

GASEOUS MINE:

A gaseous mine or portion of a mine is one wherein methane gas, to the amount of 2 per cent, can be detected within one hour after the ventilating current is stopped.

GROUNDING:

Grounding any part of an electrical system shall consist in so connecting such part to the earth that there shall be no difference of potential between them.

EXPLOSION OR FLAME PROOF:

Explosion or flame proof casings or enclosures are those which, when completely filled with any mixture of methane and air and the same exploded, are capable of either entirely confining the products of such explosion within the casing or of so discharging them from the casing that they cannot ignite a mixture of methane and air, combined in proportions most sensitive to ignition and entirely surrounding the points of discharge, and in most intimate proximity therewith.

UNDERGROUND STATION:

An underground station is herein considered as any place where electrical machinery is permanently installed.

SECTION 1.

General.

CAPACITY, INSTALLATION, ETC.:

(1) All electrical apparatus and conductors shall be sufficient in size and power for the work they may be called upon to do, and as hereinafter prescribed, efficiently covered or safeguarded, and so installed, worked and maintained as to reduce danger from accidental shock or fire to the minimum, and shall be of such construction, and so worked, that the rise in temperature caused by ordinary working will not injure the insulating materials.

(2) For work underground, when supplied with current at a voltage higher than medium voltage, no transformer shall have a normal capacity of less than 5 K. W., nor shall a motor have a normal capacity of less than 15 brake H. P.

GROUNDING:

(3) All metallic coverings, armoring of cables, other than trailing cables, and where installed underground, the frames and bed plates of generators, transformers, and motors other than low voltage portable motors shall be efficiently grounded, as shall also the neutral wire of three-wire continuous current systems.

VOLTAGE RESTRICTIONS:

(4) Motors of coal cutting and other portable machines, and of electric locomotives, shall not be used at a voltage higher than medium voltage.

(5) No higher voltage than medium voltage shall be used underground, except for transmission or for application to transformers or other apparatus in which the whole of the high voltage circuit is stationary.

(6) In gaseous mines, high voltage transmission cables shall be installed in the intake airways only, and high voltage motors and transformers shall be installed only in suitable chambers ventilated by the intake air which has not passed through, or by, a gaseous district.

(7) All high voltage machines, apparatus, and lines shall be so marked as to clearly indicate that they are dangerous by the use of the word "Danger" placed at frequent intervals.

GROUND DETECTORS:

(8) All underground systems of distribution that are completely insulated from earth shall be equipped with properly installed ground detectors of suitable design.

The condition of such systems as indicated by the ground detector shall be noted each day by the person in charge of the underground wiring or by another competent person, who shall immediately report to him the occurrence of a ground.

SWITCHBOARDS:

(9) Main and distribution switch and fuse boards shall be made of incombustible insulating material, such as marble or slate free from metallic veins, and be fixed in as dry a situation as practicable.

PRECAUTION AGAINST SHOCK:

(10) Gloves or mats of rubber or other suitable insulating material shall be provided and used when repairs are made to the live parts of any electrical apparatus, or when the live parts of electrical apparatus have to be handled for the purpose of adjustment.

ELECTRICIAN:

(11) At every mine where electricity is used below ground for power, there shall be employed a competent mine electrician who shall have full charge of the electrical apparatus in the mine, but shall be subject to the authority of the mine foreman or superintendent.

(12) Any person who shall wilfully damage, or, without authority, alter or make connections to any part of a mine electrical system shall be guilty of a misdemeanor.

RESTORATION FROM SHOCK:

(13) Instructions shall be posted in every generating, transforming, and motor room, and at entrance to the mine, containing directions

as to the restoration of persons suffering from electrical shock, and all employees working in connection with electrical apparatus shall be familiar with, and know how to carry out, these instructions.

PLAN OF ELECTRICAL SYSTEM:

(14) A plan shall be kept at the mine, showing the location of all stationary electrical apparatus in connection with the mine electrical system, including permanent cables, conductors, lights, switches, and trolley lines. The plan shall be of sufficient size to show clearly the position of such apparatus, and the scale shall not be less than 200 feet per inch. There shall be stated on the plan the capacity in horse power of each motor, and in kilowatts of each generator or transformer, and the nature of its duty. Such plans shall be corrected as often as may be necessary to keep them up to date at intervals not exceeding six months.

REPORT OF DEFECTIVE EQUIPMENT:

(15) In the event of a breakdown, or of damage or injury to any portion of the electrical equipment in a mine, or of overheating or of the appearance of sparks or arcs outside of enclosing casings, or in the event of any portion of the equipment, not a part of the electrical circuit, becoming alive, every such occurrence shall be promptly reported to the person in charge of electrical equipment.

SECTION II.

Underground Stations and Transformer Rooms.

SWITCHBOARDS:

(16) All switches, circuit breakers, rheostats, fuses, and instruments used in connection with underground motor-generators, rotary convertors, high voltage motors, transformers, and low and medium voltage motors of more than 50 H. P. capacity shall be installed upon a suitable switchboard. Similar equipment for low and medium voltage motors of 50 H. P. and less, may be separately installed, if mounted upon insulating bases of slate or equivalent insulating material.

(17) In underground stations, where switchboards are installed, there shall be a passageway in front of the switchboard not less than 3 feet in width, and if there are any high voltage connections at the back of the switchboard, any passageway behind the switchboard shall not be less than 3 feet clear.

(18) The space at the back of the switchboards shall be properly floored, accessible from each end, and, in the case of high voltage switchboards, shall be kept locked up, but the lock shall allow of the door being opened from the inside, without the use of a key. The floor at the back of high voltage boards shall be incombustible.

(19) Where the supply is at a voltage exceeding the limits of medium voltage, there shall be no live metal work on the front of the main switchboard within 7 feet of the floor or platform, and the space provided under Rule No. 17 of this section shall not be less than 4 feet in the clear. Insulating floors or mats shall be provided for medium voltage boards, where live metal work is on the front.

PROTECTION OF CIRCUITS LEADING UNDERGROUND:

(20) In every completely insulated feeder circuit in excess of 25 K. W. capacity, leading underground and operating at a potential not exceeding the limits of medium voltage, there shall be provided above ground a switch on each pole, and an automatic overload circuit breaker on at least one pole in the case of direct current circuits, and on at least two poles of polyphase alternating current circuits. In case of

ground return direct current circuits, a switch and circuit breaker shall be installed in the underground side of the circuit, but may be omitted from the return side. Fuses may be substituted for circuit breakers in circuits transmitting 25 K. W., or less. Each circuit leading under ground shall be provided with a suitable ammeter.

(21) Every alternating current feeder circuit leading underground and operating at a potential exceeding the limits of medium voltage shall be provided above ground with an oil break switch on each pole, such switch or switches to be equipped with an automatic overload trip. Each such circuit shall also be provided with a suitable ammeter.

TRANSFORMER ROOMS:

(22) Transformer rooms shall be of fire-proof construction.

(23) Where the potential of circuits entering or leaving a transformer exceeds the limits of medium voltage, they shall be protected by an oil break switch on each pole, each such switch or switches to be equipped with an automatic overload trip.

(24) Where the potential of circuits entering or leaving a transformer does not exceed the limits of medium voltage, they shall be protected by a switch and an automatic circuit-breaker on each pole, except that fuses may be substituted for the circuit-breakers in the case of lighting circuits and in the case of power circuits, transmitting 25 K. W. or less.

(25) All transformers shall be provided with suitable ammeters in either the primary or secondary circuits.

PROTECTION OF MACHINE TERMINALS:

(26) All terminals on machines over medium voltage under ground shall be protected with insulating covers or with metal covers connected to earth.

UNAUTHORIZED PERSONS:

(27) No person other than an authorized person shall enter a station or transformer room, or interfere with the working of any apparatus connected therewith.

FIRE BUCKETS:

(28) Fire buckets, filled with clean, dry sand, shall be kept in electrical stations and transformer rooms, ready for immediate use in extinguishing fires.

SECTION III.

Transmission Circuits and Conductors.

MEDIUM VOLTAGE, POWER AND LIGHT CIRCUITS:

(29) All high pressure wires used inside of the mines shall be in the form of insulated lead-covered or armored conductors, subject to insulation tests and with carrying capacity according to the rules of the National Board of Fire Underwriters.

Medium or low pressure conductors may be bare, except, in gaseous parts of mines, no bare conductors shall be used in rooms or in room entries, or beyond the last cut-through in other intake entries.

(30) All underground cables and wires, unless provided with grounded metallic covering, shall be supported by means of efficient insulators. The conductor connecting lamp to the power supply shall in all cases be insulated.

MAIN CIRCUITS:

(31) Every main circuit coming from generating or transformer stations shall there be provided with switches, fuses and circuit-breakers

as described in Section II, Rules 20 and 21, and Rules 23 to 25, inclusive.

(32) If the transmission lines, of low or medium voltage, from the generating station, are overhead, there shall be lightning arresters installed in connection therewith at the generating station. If the distance from the generating station to the point where the lines enter the mine is more than 500 feet, an additional arrester shall be installed at this point, and in no case shall the arresters be more than 1,000 feet apart.

(33) In any gaseous mine, or gaseous parts of a mine, the electrical supply shall be brought underground only through such portions of the mine as are ventilated by intake air.

BRANCH CIRCUITS:

(34) Every branch circuit shall be provided at the point where it leaves the main circuit with a switch, of not less than 100 ampere capacity, on each pole.

SIZE OF CONDUCTORS:

(35) The size of all conductors shall be determined with regard to the maximum amount of current which they are to carry, by reference to the table provided by the National Board of Fire Underwriters, which shows maximum current carrying capacities of copper conductors.

GROUNDING CIRCUITS:

(36) One side of grounded circuits shall be very efficiently insulated from earth.

OVERHEAD CIRCUITS ABOVE GROUND:

(37) Overhead bare wires above ground shall be supported upon insulators which shall be adequate in quality, size, and design for the voltage transmitted.

UNDERGROUND TROLLEY:

(38) In the underground roads, the trolley wires shall be installed as far to one side of the passageway as is practicable, and securely supported upon hangers efficiently insulated and placed at such intervals that the sag between points of support shall not exceed 3 inches.

(39) All other wires, except telephone, shot firing and signal wires shall be on the same side of the road as the trolley wire.

(40) At all landings, partings and similar places, where men are required to regularly work, or pass under trolley or other bare power wires, which are placed less than 6 1-2 feet above top of rail, a suitable protection shall be provided. This protection may consist of channeling the roof, placing boards along the wire, which shall extend three inches below it, or the use of other approved devices that afford protection. All such places shall be well lighted with electric lamps.

(41) All branch trolley lines shall be fitted with an automatic trolley switch, or section insulator and line switch, or some other device, that will allow the current to be shut off from such branch headings. Lights shall be placed along the branch headings to indicate when the power is on.

(42) It is recommended that where air or water pipes parallel the grounded return of power circuits, the return be securely bonded to such pipes, at frequent intervals, to eliminate the possibility of a difference of potential between rails and pipes and to prevent electrolysis of the pipes. The rail return shall be of sufficient capacity for the current used, independent of the capacity of the pipes. On main

haulage roads, both rails shall be bonded, and cross bonds shall be placed at points not to exceed 200 feet apart.

LIGHTING CIRCUITS:

(43) Where wires for electric incandescent lamps are connected to the trolley circuit, the lug of the trolley hanger, to which connection is made, shall be drilled to receive the lighting wire, and provided with a set screw for securing same in place. Lighting wires shall not be wrapped or tied about the seams or studs of trolley hangers. The ground connection for lighting wires taken off the trolley circuit must be made to the track circuit.

(44) Wires for all lighting circuits shall be covered with an insulation adequate for the voltage of the circuit, and strung on porcelain or glass insulators, unless they are encased in pipes or other metallic covering. If separate uncased wires are used, they shall be kept at least three inches apart, except where they enter the fittings. If metallic casings are used, they shall be grounded efficiently.

JOINTS IN CONDUCTORS:

(45) All joints in conductors shall be mechanically and electrically efficient, and, wherever it is possible to do so, they shall be soldered. Wherever the conductors cannot be soldered together, suitable screw clamps or connectors shall be used. All joints in insulated wire shall, after the joint is complete, be reinsulated to at least the same extent as the remainder of the wire.

INSULATION AND COVERING:

(46) All high voltage conductors inside of the mines shall be in the form of insulated lead-covered or armored cables, subject to approved insulation tests, and having carrying capacities in accordance with paragraph No. 35, Section III.

(47) Where lead covered or armored cable is used, the lead or armor shall be electrically continuous throughout, and shall be efficiently grounded.

CABLES ENTERING FITTINGS:

(48) The exposed ends of cables where they enter fittings of any description, shall be so protected and finished off that moisture cannot enter the cable, or the insulating material, if of an oily or viscous nature, leak out.

(49) Where unarmored cables or wires pass through metal frames, or into boxes or motor casings, the holes shall be substantially bushed with insulating bushings, and, where necessary, with gas tight bushings which cannot readily become displaced.

JOINTS IN CABLES:

(50) Where cables other than signal cables are joined, suitable junction boxes shall be used, or the joints shall be soldered, and the insulation, armoring or lead covering replaced in at least as good condition as it was originally.

POWER WIRES AND CABLES IN SHAFTS:

(51) All power wires and cables in hoisting shafts or manway compartments shall be highly insulated and substantially fixed in position.

Shaft cables whose conductors or covering are not capable of sustaining their own weight shall be supported, at intervals not to exceed

25 feet, by suitable grips, which cannot cause abrasion of the covering or insulation, but shall so support the cable that no grip shall carry more than the weight of the cable between any two successive grips. Where the cables are not completely boxed in and protected from falling material, space shall be left between them and the side of the shaft, that they may yield, and so lessen a blow by fallen material.

CABLES IN HAULAGE ROADS:

(52) Where the cables or feed wires in main haulage roads cannot be kept at least 12 inches from any part of the mine car or locomotive, they shall be specially protected by proper guards.

(53) Cables and wires, unless provided with metallic coverings, shall not be fixed to walls or timbers by means of uninsulated fastenings.

PROTECTION DURING BLASTING, ETC.:

(54) When main or other roads are being replaced, or blasting is being carried on, suitable temporary protection from damage shall be given the cables.

TRAILING CABLES:

(55) Trailing cables for portable machines shall be specially flexible, heavily insulated, and protected with extra stout braiding, hose pipes, or other equally effective covering.

(56) Each trailing cable in use shall be daily examined by the machine operator for abrasions and other defects; and he shall also be required to carefully observe the trailing cable while in use, and shall at once report any defect to the person in charge of electrical equipment.

(57) In the event of the trailing cable in service breaking down, or becoming damaged in any way, or of its inflicting a shock upon any person, it shall be at once put out of service, and another cable shall be substituted therefor. The faulty cable shall not again be used until it has been repaired and tested by a properly authorized person.

(58) The trailing cable shall be divided at the motor, but only for such length as is necessary for making connection to the motor, and the cable, with its outer covering complete, shall be securely clamped to the motor frame in such a manner as to protect the cable from injury, and to prevent any mechanical strain being borne by the single ends that make electrical connection to the motor.

(59) In gaseous parts of mines, a fixed terminal box shall be provided at the points where trailing cables are attached to the power supply. This terminal box shall be flame-proof, and shall contain a switch and fuse on each pole of the circuit. The switch shall be so arranged that it can only be operated from without the box, when the latter is completely closed, and the switch shall also be so constructed that the trailing cables cannot be attached or removed when the switch is closed.

SECTION IV.

Switches, Fuses and Circuit-Breakers.

OPERATION AND CAPACITY:

(60) Fuses and automatic circuit-breakers shall be so constructed as effectually to interrupt the current on short circuit, or when the current through them exceeds a predetermined value. Open type fuses shall be provided with terminals.

Circuit breakers shall be adjustable to trip at from 50 per cent to 150 per cent of their normal rated capacity, and provided with an indicator which shall show at what current the circuit breaker is set to trip.

(61) Fuses shall be stamped or marked, or shall have a label attached, indicating the maximum current which they are intended to carry. Fuses shall only be adjusted or replaced by a competent person authorized by the mine foreman.

FEEDER CIRCUIT-BREAKERS:

(62) Circuit-breakers used to protect feeder circuits shall not be set to trip when the current exceeds by more than 50 per cent the current carrying capacity of the feeder. In case the feeder is subjected to over-loads sufficient to trip the circuit-breaker, but of short duration, the circuit-breaker may be equipped with a device which will prevent its acting, unless the overload persists for a longer period than 10 seconds.

FEEDER FUSES:

(63) Fuses used to protect feeders shall have a greater current rating than the feeder.

BASES:

(64) All switches, circuit-breakers and fuses shall have incombustible bases.

SWITCHES:

(65) All points at which a circuit, other than a signal circuit, has to be made or broken shall be provided with proper switches. The use of hooks or other make shifts is prohibited, except that connection for gathering locomotives, or locomotives and machines used in driving headings, may be made to the trolley by means of suitable hooks; switches shall be so installed that they cannot be closed by gravity. In any gaseous parts of a mine, switches, circuit-breakers or fuses shall not be of the open type, but must be inclosed in explosion-proof casings or break under oil.

SECTION V.

Motors.

STATIONARY MOTORS:

(66) Every stationary motor underground, together with the starting resistance, shall be protected by a fuse on each pole or circuit-breaking device on at least one pole for direct current, and two poles for alternating current motors, and by switches arranged to entirely cut off the power from the motor. The above devices shall be installed in a convenient position near the motor, and every stationary underground motor of 100 brake H. P. or over shall be provided with a suitable meter to indicate the load on the machine.

MOTORS IN GASEOUS MINES:

(67) In any gaseous part of a mine, all motors, unless placed in such rooms as are separately ventilated with intake air, shall have all their current carrying parts, also their starters, terminals and connections completely enclosed in explosion-proof enclosures made of non-inflammable material. These enclosures shall not be opened except by an authorized person, and then only when the power is switched off. The power shall not be switched on while the enclosures are open.

UNDERGROUND STATIONARY MOTORS IN NON-GASEOUS MINES:

(68) Motors used for operating fans in non-gaseous mines, where they are so situated that they are not under constant supervision of a competent man, shall be totally enclosed (not necessarily explosion-proof), unless placed in a chamber or passageway completely lined

with incombustible material, and the chamber or passageway itself free from combustible material.

DETECTION OF GAS:

(69) In working places where gas is likely to be encountered a safety lamp or other suitable apparatus for the detection of firedamp shall be provided for use with each machine when working, and should any indication of firedamp appear on the flame of the safety lamp or other apparatus used for the detection of firedamp, the person in charge shall immediately stop the machine, cut off the current at the nearest switch, and report the matter to the mine foreman.

ENCLOSED MOTORS:

(70) All enclosed motors used underground shall be opened and inspected by the person in charge of electrical equipment, or his assistant, at least once a week, and, where necessary, shall then be cleaned and repaired. Enclosed switches shall be opened and inspected at least once a month.

COAL CUTTING MACHINES:

(71) No man shall be placed in charge of a coal cutting machine in any gaseous part of a mine, who is not a competent person, capable of determining the safety of the roof and sides of the working place, and detecting the presence of explosive gas.

(72) In any gaseous part of a mine, a coal cutting machine shall not be brought within the last break-through next the working face until the machine men shall have made an inspection for gas in the place where the machine is to work, unless such examination is then made by some other competent person, authorized or appointed for that purpose by the mine foreman. If any explosive gas is found in the place, the machine shall not be taken in.

(73) No coal cutting machine shall be continued in operation in a gaseous part of a mine for a longer period than half an hour without an examination as above described being made for gas, and if gas is found, the current shall at once be switched off the machine, and the trailing cable shall forthwith be disconnected from the power supply.

(74) The person finding gas shall at once report the fact to the fire boss or mine foreman, and the machine shall not again be started in such place until the fire boss, or a person duly authorized by the mine foreman, has examined it and pronounced it safe.

(75) The person in charge of a coal cutter or drilling machine shall not leave the machine while it is working, and shall, before leaving the working place, see that the current is cut off from the trailing cables.

(76) In any gaseous part of the mine, if any electric sparking or arc be produced outside a coal-cutting or other portable motor, or by the cables or rails, the machine shall be stopped, and not worked again until the defect is repaired, and the occurrence shall be reported to an official of the mine.

SECTION VI.

Electric Locomotives.

TROLLEY SYSTEM.

(77) Electric haulage by locomotives operated from a trolley wire is not permissible in any gaseous parts of mines, except upon the intake air fresh from the outside. In parts of mines in which there is an excessive amount of gas, the trolley wire system is prohibited.

(78) In no case shall the potential used in the trolley system be higher than medium voltage.

STORAGE BATTERY SYSTEM:

(79) Storage battery locomotives shall be used in gaseous mines only when the boxes containing the cells and all electrical parts are enclosed in flame and explosion-proof casings. (For regulations covering the installation of the trolley wire, see Section III, Rules 38 to 42, inclusive.)

SECTION VII.**Electrical Lighting.****ARC LAMPS:**

(80) Arc lamps shall not be used in gaseous mines except under conditions where trolley locomotives are allowable.

(81) If arc lamps are used underground in coal mines, they shall be of the enclosed arc type, and shall not be used in situations where there is likely to be danger from the presence of coal dust.

INCANDESCENT LAMPS:

(82) In all mines, the sockets of fixed incandescent lamps shall be of the so-called "weather proof" type, the exterior of which shall be entirely non-metallic. Flexible lamp cord connections are prohibited, except for portable lamps, as covered by Rule 85.

(83) In any gaseous parts of a mine, except where ventilated by fresh intake air, incandescent lamps shall be protected by gas-tight fittings of strong glass, except that lamps of 220 volts, or higher, and of not more than 8 candle power and without tips, need not be so protected.

(84) Incandescent lamps shall be so placed that they cannot come in contact with combustible material.

(85) Portable incandescent lamps, other than battery lamps, shall not be used except in connection with the repair and inspection of machines and equipment, and then only in non-gaseous parts of mines. When so used they shall be protected by a heavy wire cage, completely enclosing both lamp and socket, and shall be provided with a handle to which both cage and socket are firmly attached and through which the leading-in wires are carried.

(86) Electric lamps shall be replaced by a competent person only. And in gaseous parts of a mine, only after an examination for gas has been made with a safety lamp.

(For further regulations regarding electric lighting circuits, see Section III, Rules 43 to 45, inclusive.)

SECTION VIII.**Shot Firing by Electricity.****SHOT FIRING CIRCUITS:**

(87) Electricity from any grounded circuit shall not be used for firing shots.

(88) When shot-firing cables or wires are used in the vicinity of power or lighting conductors, special precaution shall be taken to prevent the shot-firing cables or wires from coming into contact with the light, power, or any other circuits.

SHOT FIRERS:

(89) Only competent persons, who have the necessary training and skill, and who have been properly instructed in the work and duly authorized in writing, shall be allowed to fire shots electrically, in any mine.

ELECTRIC DETONATORS:

(90) All electric detonators and leads thereto shall be suitable for the conditions under which the blasting is carried on, and shall be of a type approved by the Federal Bureau of Mines. The charge shall consist of 90 parts by weight of mercury fulminate, and 10 parts, by weight, of potassium chlorate, or their equivalent. The charge of detonating composition, depending on the type of explosive used, shall not be less than that recommended by the Federal Bureau of Mines. Detonators shall be kept in a dry place, and never stored with any other explosive. They are extremely sensitive to heat, friction, or blows, and should be handled with great care.

PORTABLE FIRING MACHINES AND BATTERIES:

(91) Portable shot firing machines, sometimes called generators, shall be enclosed in a tightly constructed case, when employed in any part of the mine. All contracts, when made or broken, shall be within the case, except that the binding posts for making connections to the firing leads may be outside.

(92) Primary or secondary batteries used for shot firing shall be provided with a suitable case, covered by Rule 91. The batteries shall be constructed so that if the wires of a detonator or leads should accidentally or otherwise come in contact with the binding posts, no current will be discharged. They shall be provided with a detachable handle, plug, or key, without which the current cannot be closed, or provided with one or more safety contact buttons, which are well countersunk or protected by a non-conducting housing. The plugs, handles, or keys, shall be detached when not actually in use for firing a shot, and shall not, under any circumstances, pass from the personal custody of the person commissioned to fire the shots while on duty.

(93) All portable devices for generating or supplying electricity for shot firing, when in a mine, shall be in charge of the person commissioned to fire the shots.

(94) No firing machine or battery shall be connected to the shot firing leads until all other steps, preparatory to the firing of a shot, have been completed, and all persons have moved to a place of safety.

DISCONNECTING OF LEADS:

(95) Immediately after the firing of a shot, the firing leads shall be disconnected from the supply or source of electricity, and no person shall approach a shot which has failed to explode until the firing leads have been so disconnected from the devices, and an interval of five minutes has elapsed since the last attempt to fire the shot.

TESTS OF GENERATORS AND BATTERIES:

(96) Frequent tests shall be made of all devices covered by Rule 93 to insure that their capacity has not been decreased by use or accident.

SPECIAL SYSTEMS:

(97) The use of special electrical shot firing systems, or equipment not covered by the foregoing, shall receive the approval of the Federal Bureau of Mines.

SECTION IX.**Electric Signalling.****PRECAUTIONS:**

(98) All proper precautions shall be taken to prevent electric signal and telephone wires from coming into contact with other electric conductors, whether insulated or not.

CHARACTER OF EQUIPMENT:

(99) Bells, wires, insulators, contact-makers, and other apparatus, used in connection with electric signalling underground, shall be of suitable design, of substantial and reliable construction, and erected in such a manner as to reduce the liability of failures or false signals to a minimum.

MAXIMUM POTENTIAL:

(100) In any gaseous part of a mine, the potential used for signal purposes shall not exceed 10 volts, and bare wires shall not be used for signal circuits, except in haulage roads.

TELEPHONES:

(101) It is recommended that telephonic communication be established between the outside of the mine and the principal points of operation underground.

SECTION X.

Electric Relighting of Safety Lamps.

(102) If, in any place or part of a mine in which safety-lamps are used, they are relighted underground by electricity, the manager shall select a suitable station or stations, not being in the return airway, and where there is not likely to be any accumulation of inflammable gas; and no electric relighting apparatus shall be used in any other place. All electrical relighting apparatus shall be securely locked, and shall not be available for use except by persons authorized by the manager to relight safety lamps; and such persons shall examine all safety lamps, brought for relighting, before they are re-issued.

PRESIDENT BUCKLEY: I am sure this Congress is indebted to Judge Tyrrell for reading the report of this committee. The report is very long but, in reality, it is a very important report and contains many things of value. The committee has done a vast amount of work, as is seen by the report. They have investigated the matter very carefully, and it is unfortunate that we could not have more men directly interested in mining here to listen to the report. If there is no objection this report will be accepted and placed on file in the records of the Congress.

MR. D. J. KELLY, of Arizona: I move, Mr. President, that the report be accepted. Seconded.

Motion was put and carried unanimously.

PRESIDENT BUCKLEY: If there is no further business to come before the Congress, we will now adjourn until 10 o'clock tomorrow. I wish to state, however, that there will be a meeting of the members only of the American Mining Congress here at 8:30 o'clock this evening, at which we trust all members will attend who can possibly do so.

The Congress was thereupon adjourned until Friday, September 30, 1910, at 10 o'clock A. M.

FRIDAY, SEPTEMBER 30, 1910.

Morning Session.

PRESIDENT BUCKLEY: The Congress will please be in order.

Are there any reports of committees to be submitted? I think the Resolutions Committee will have some resolutions to report before the close of the session this morning. We will now listen to the report of the Committee on Standardization of Electrical Equipment in Metal Mines.

SECRETARY NORMAN: The report is as follows:

REPORT OF THE COMMITTEE ON STANDARDIZATION OF ELECTRICAL EQUIPMENT IN METAL MINES

Denver, Colorado, Sept. 20, 1910.

To The American Mining Congress.

Your Committee on Standardization of Electrical Equipment in Metal Mines has held meetings, carried on correspondence with members of the other Committee for Coal Mines in regard to their work and with the Bureau of Standards in Washington concerning their investigations and report, and collected considerable data, but it not yet prepared to submit a definite report for the following reasons:

Soon after the appointment of the committee, the Chairman was obliged to go East and was gone several weeks, during which he discussed the question with others interested in the subject. On his return he found a letter from Mr. Chase stating that he must be absent from Denver for about six weeks and suggesting the appointment of some one in his place; but the other members felt that the committee could not afford to lose his valuable experience and judgment. Since then, all of the members have been extremely busy and away at different times so it has been difficult to obtain any positive and concerted action. The subject is a very important one, requiring thorough investigations and consideration, with a view to making recommendations which will be fair and beneficial to both mine owners and employees, and while giving proper protection to all concerned, will not unduly increase the expense, or otherwise hamper the utilization of electric power in mining operations.

Respectfully submitted,

IRVING HALE, Chairman.

H. S. SANDS,

CHARLES A. CHASE.

PRESIDENT BUCKLEY: We will now listen to the report of the Forestry Committee submitted by A. G. Brownlee, chairman.

The report was thereupon read by the Secretary, and is as follows:

REPORT OF THE FORESTRY COMMITTEE OF THE AMERICAN MINING CONGRESS.

Denver, Colo., September 7, 1910.

To the President and Members of the American Mining Congress, Los Angeles, California:

Gentlemen: The composition of this committee is the result of the action of your Congress taken at its session held at Goldfield, Nevada, in September of last year. At that session of the Congress no action was taken on the report of your then Forestry Committee, due to the fact that before the report was submitted to the Congress, Hon. J. H. Richards of Idaho introduced and presented Resolution No. 23, reading as follows:

"Resolved, That a committee of five be appointed by the Mining Congress to consider and recommend such changes in existing Federal statutes and regulations, as will remove causes of friction, and best promote friendly co-operation between the mining interests and the management of the National Forests, with a view to facilitating prospecting and mining within the National Forests. That the report of the Forestry Committee, submitted to the Congress at this session, be submitted to the above committee for its information and consideration, and that the Forestry Committee be discharged."

The resolution quoted was referred to the Committee on Resolutions at the afternoon session of the Congress held on September 30, 1909, and on the following morning it was favorably reported upon by the Resolutions Committee and was subsequently adopted.

After the above action was taken, the twelve-page printed report of your then Forestry Committee was submitted to the Congress, and its adoption was moved by Mr. Oscar J. Smith of Nevada, seconded by Mr. Kepner of the same state. Thereupon, Judge Richards of Idaho took the floor in opposition to the motion, alleging that its adoption would be in conflict with Resolution No. 23, previously adopted by the Congress. His remarks upon the subject are contained on pages 99, 100 and 101 of the printed proceedings of the session referred to, wherein he takes exception to the recommendations of the Forestry Committee on the ground that its adoption would be destructive instead of constructive, for the reasons that the questions involved are purely legal ones, involving an interpretation of certain laws, in which he claimed that the officials of the Forest Service were as clearly entitled to their opinions as were the members of the American Mining Congress.

In view of the above, Messrs. Smith and Kepner withdrew their motion for the adoption of the report of the Forest Committee, which was never even read to the Congress; therefore, the result of the continuous work and deliberations of that important committee was laid aside without further consideration—except to refer it to this committee.

Inasmuch as no further action was taken at the Goldfield session looking toward the appointment of a committee under Resolution No. 23, that duty necessarily devolved upon the Board of Directors of the Congress, which, after considerable work and difficulty, succeeded in obtaining the consent of three of the former members of the committee to continue to act (Messrs. Brownlee, Mills and Colburn of Colorado) and appointed two new members (Messrs. A. W. Warwick of Colorado, and John Dern of Utah), who succeeded Messrs. Bancroft and Daniels of Colorado.

The composition of the existing Forestry Committee is, therefore, made of those members of the Congress who were found willing to devote their time and talents to the work, and its several members were selected by the Board of Directors on account of their special knowledge of and qualifications for the work to be performed.

The foregoing statement of facts is made at this time in order that the members of this committee who were also members of the old committee may not be challenged, or even criticised, in the matter of passing upon the work done by the former committee of which they were members, their reappointment upon this committee being strongly urged by the Board of Directors of the Congress, and their acceptance of such appointment being reluctantly obtained.

Under the circumstances, this committee deplores the fact that no member of the Forestry Committee of this Congress was able to be present at the Goldfield session, and in this connection it may truthfully be stated that every member of that committee spent so much time in committee work, that all its members felt they had contributed all the time they were warranted in giving to the subject, and that the printed report which it submitted, embodying the result of careful investigation for over one year, would receive due consideration in the Congress when it assembled.

The fact that Resolution No. 23 was adopted by the Congress before the report of the Forestry Committee was submitted, is thought by this committee to be a mistake in procedure, and it is submitted in all candor and fairness, that before any action was taken in the matter, the report of the Forestry Committee should first have been submitted to the Congress, and have been fully discussed and understood, otherwise committee work is of little avail.

This committee has laboriously and carefully examined, in detail, all the work performed by the committee that was discharged at the Goldfield session of the Congress, and it finds:

First: That all the members of the old committee, with the exception of one, perhaps, were **prejudiced** in favor of the Forest Service.

Second: That it collected, examined and investigated a large number of complaints against the Forest Service, upon which it based its conclusions, findings and recommendations.

Third: That in presenting its findings and recommendations to the Congress, it had no thought or idea of condemning the Forest Service, but rather by helping it to understand the needs and necessities of the mining industry, and if by chance the language used in the report appeared severe, it should not be considered except as the reflex of the severe complaints investigated by the committee.

Fourth: That in the matter of interpretation of the laws governing the use of timber on Forest Reserves, the opinion of the committee is entitled to serious consideration, it being submitted that the laws were made for the benefit of the people, and not for the National Forest Service or for the American Mining Congress, or either of them. The wisdom of this recommendation is plainly set forth hereafter.

In his address before the Conservation Congress, held in St. Paul, Minn., on the fifth inst., President Taft won a quick response from his thousands of hearers, by an appeal to the practical common sense in dealing with conservation problems.

In the opinion of many who heard him, he also made answer to the recent agitation for a "new nationalism," or a federal centralization of power, by declaring the only safe course to pursue was to hold fast to the limitations of the constitution and to regard as sacred the power of the states. He also declared that the time for rhapsodies and glittering generalities had passed, and suggested to the Congress that it should invite its speakers to come down to details, to specific evils and to specific remedies.

In connection with the above, it may be stated in all modesty that your Forestry Committee, both old and new, have been dealing with cold facts—not fancies, rhapsodies or glittering generalities. It has collected many records of abuses that are inimical to the mining industry, upon which it based findings and recommendations which it hoped and believed might prove useful and valuable to this Congress and also to the Forest Service in an equitable and legal solution of the rights of all and all this has been done with nothing but the friendliest feeling toward the Forestry Service, which the committee desires to assist in every way within its power, not forgetting its allegiance to the mining industry.

In the matter of the free use of timber for the development of prospective mines, it will be noted that the entire question hinges on the interpretation of the Act of June 3, 1878, (20 Stat., 88), which the Use Book says, "applies only to unreserved lands not within National Forests;" however, no authority of law may be found for such a statement. (See Use Book, p. 246.)

The Act of Congress referred to plainly gives the miner and prospector the right to cut and take timber from any public mineral land for the development of his claim. The Act has never been repealed, nor has there ever been any legislation limiting it to any other or less portion of the public lands than is specified in the Act itself, yet in the Use Book it is stated in parenthesis that "The act applies only to unreserved lands not within National Forests."

The report of your committee of last year speaks quite plainly and at length on this important matter, and should not be passed over lightly. This opinion is expressed with full consideration of the remarks of our honored member and past-president, Judge Richards of Idaho, whom your committee submits might think differently if he were to examine the mass of evidence collected in the premises, and the careful study of the laws made by the committee on the subject. However that may be, it is quite certain that the administration at Washington is not going to take any chances in the matter of the interpretation of the law referred to, for on January 18, last, Senator Nelson of Minnesota introduced Senate Bill 5489, which was referred to the Committee on Public Lands, and which provides, among other things, as follows:

"Section 7. That the Act entitled 'An Act authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes,' approved June 3, 1878, and the Act entitled 'An Act for the sale of timber lands in the States of California, Oregon, Nevada, and in Washington Territory,' approved June 3, 1878, excepting sections 4, 5 and 6 thereof, and all Acts and parts of Acts amending or extending sections 1, 2 and 3 of said Act, and all other Acts or parts of Acts inconsistent herewith, be, and the same are hereby repealed. Provided, That all valid subsisting claims heretofore initiated under sections 1, 2 and 3 of said Act of June 3, 1878, or amendments thereof, may be perfected upon compliance with law and regulations issued thereunder."

Whatever differences of opinion may have existed, or now exist, relative to the interpretation of the law of 1878 and the effect thereon of the subsequent laws creating National Forests and their administration, it is quite evident that even the officials of the National Forest Service clearly recognize that the the prospector and miner has some legal rights thereunder, **otherwise there would be nothing to repeal.** Senator Nelson's proposed measure leaves nothing to be inferred relative to the rights of prospectors or miners in the free use of timber within our National Forests. It completely and effectively abrogates all such rights. There is no mistaking the intent of this measure. Whatever rights the prospector or miner may have under the law of 1878 will be completely wiped out if Senator Nelson's administrative measure is permitted to pass, and inasmuch as prospecting has been greatly curtailed within our National Forests, due to the restrictions placed upon the already overburdened prospector, it is the candid and unbiased opinion of this committee that the report of your Forestry Committee, dated Denver, Colorado, September 17, 1909, and presented at the Goldfield session of this Congress last year, should be reconsidered, and be adopted.

In this connection your committee is quite willing to also recommend that this Congress join the National Forester in any effort to have the ancient law of 1878 amended to fit present conditions, but in any such amendment this Congress should **INSIST UPON RETAINING FOR THE PROSPECTOR THE UNQUESTIONED RIGHT THAT HE NOW HAS, BOTH IN LAW AND EQUITY, TO USE TIMBER OR ANY OTHER PRODUCT FROM ANY PORTION OF LAND TO WHICH HE HAS A POSSESSORY TITLE UNDER A VALID MINERAL LOCATION.**

Respectfully submitted,

A. G. BROWNLEE,
W. F. R. MILLS,
E. A. COLBURN,
JOHN DERN,
A. W. WARWICK.

PRESIDENT BUCKLEY: What is your pleasure with the report?

MR. G. W. HULL, of Arizona: Mr. President: I move that the report be received. I think it has been a very conservative committee. Motion was seconded.

PRESIDENT BUCKLEY: The motion has been made and seconded that this report on Forestry be received—and, I would suggest, be referred to the Committee on Resolutions. Are you ready for the question?

MR. HULL: Mr. President: My position is that the committee has done its duty under the circumstances. I do not believe that any part of this organization can dictate to Congress. I believe the committee has been very conservative in its actions, and I think that all committees that deal with Congress should use reasonable care in regard to what they do. We have a portion of the United States work-

ing against us, but now we have got to work reasonably, and when we work reasonably we may accomplish such things as may be of benefit to the American Mining Congress.

PRESIDENT BUCKLEY: Are there any further remarks on the motion?

The motion carried unanimously and the report was referred to the Resolutions Committee.

PRESIDENT BUCKLEY: The next address is one that was to be given by Hon. A. O. Eberhart of Minnesota on "State Leasing of Mineral Lands." Governor Eberhart has prepared a paper covering this subject, and this paper will be read by Mr. J. J. McCardy, the Governor's representative here at this Congress.

The paper, as read by Mr. McCardy, will be found on page 302 of this report.

PRESIDENT BUCKLEY: The report of the Committee on Coal Tax Insurance Fund, by Mr. John H. Jones of Pennsylvania, will be read later. It seems that report is not in the hands of the Secretary pro tem., at the present time.

I have an announcement from the Resolutions Committee saying that the Committee on Resolutions beg to inform the Congress that they will report on resolutions at 2 o'clock P. M., and request that as many members as possible be present. It was expected that the report of the committee would come in the morning, and this time has been set apart for that report. Is there any further business to come before this meeting?

The Congress will then stand adjourned until 2 o'clock this afternoon, and it will be necessary for us all to be here promptly at that time.

A recess was then taken until 2 o'clock p. m.

FRIDAY, SEPTEMBER 30, 1910.

Afternoon Session.

Mr. George W. E. Dorsey in the chair.

CHAIRMAN DORSEY: The Congress will please be in order.

SECRETARY NORMAN: I have here Resolution No. 37, introduced as a substitute for Resolution No. 31. This substitute is offered by Mr. Mensch, the author of the original resolution.

Resolution No. 37.

(Introduced as Substitute for No. 31, by W. A. Mensch, of Arizona.)

Whereas, The unrestrained waters of the Colorado river are a frequent cause of trouble to several adjoining states, and also have been the cause of international questions arising between Mexico and the United States of America; be it

Resolved, That we recommend the Congress of the United States of America to authorize the War Department to aid in the erection of a suitable dam at the most dangerous point on the Colorado river, that will prevent future trouble of this nature, and also serve to conserve their waters, thereby converting them into available power, without interfering with vested interests of any kind. Furthermore, we believe that the immediate development of the hydro-electric power on this river would prove to be a natural asset of untold value.

CHAIRMAN DORSEY: This resolution will be referred to the Committee on Resolutions. I will state to the Congress that Dr.

Buckley, Mr. Dern and other Directors are in session, and we have just prevailed upon Mr. Dern, after half an hour of difficult persuasion, to accept the presidency of this Congress for the ensuing year. (Great applause.) This afternoon I have to preside, which I object to most seriously, as I have the resolutions to report from the Committee on Resolutions. I have asked Mr. Benjamin of California to take up and present those resolutions in my stead, and I hope the Congress will bear with us if we are a little slow in getting the resolutions before the body.

MR. BENJAMIN: The first resolution that we desire to present to the Congress this afternoon I will ask the Secretary to read.

The Secretary read Resolution No. 38, by the Committee, as follows:

Resolution No. 38.

(Introduced by the Resolutions Committee.)

Hospitality and good-fellowship are bright stars in the realm of friendship, and appreciation and gratitude are their offspring. It is, therefore, with great pleasure that the American Mining Congress assembled in its thirteenth annual session at Los Angeles, California, in behalf of its members, its delegates and their families, tenders thanks to the State of California; the City of Los Angeles, and the Honorable Mayor and other city officials who are governing their municipality so well; the public press, the ladies of Los Angeles, and others who have so royally welcomed us and made our sojourn in Southern California pleasant as well as profitable.

We especially appreciate the hospitality and goodfellowship of the Sierra Madre Club of Los Angeles and of its President, Mr. E. A. Montgomery, and its Secretary, Mr. Sydney Norman, who have done so much in our behalf, and who have, by their untiring efforts, added much to the pleasure and profit of our visit.

CHAIRMAN DORSEY: What is your pleasure regarding the resolution?

MR. A. K. WRIGHT: Mr. President: I move the adoption of the resolution.

The motion was seconded and carried unanimously.

MR. BENJAMIN: The next resolution is known as Resolution No. 36, from the Committee, and is a general substitute for Resolutions Nos. 26, 29, and others that were introduced on the question of oil lands. It has been adopted by the Resolutions Committee unanimously, and I will ask the Secretary to read it.

Resolution No. 36 will be found on page 181 of this report.

CHAIRMAN DORSEY: What is your pleasure regarding this resolution?

MR. C. B. McCOLLUM, of California: Mr. President: I move the adoption of the resolution. The motion was seconded.

CHAIRMAN DORSEY: Gentlemen, you have heard the motion that this Congress adopt the resolution as read. Are there any remarks?

On being put, the motion carried unanimously.

MR. BENJAMIN: The Resolutions Committee reports favorably on Resolution No. 20, introduced by Mr. E. A. Montgomery.

CHAIRMAN DORSEY: What is your pleasure regarding the disposition of Resolution No. 20?

DR. HAILEY, of Oklahoma: I move its adoption. The motion was seconded.

CHAIRMAN DORSEY: Gentlemen, you have heard the motion that this Congress adopt the resolution just read by the Secretary. Are there any remarks?

The motion carried unanimously.

Resolution No. 20 will be found on page 179.

MR. BENJAMIN: Resolution No. 7, introduced by Mr. David Ross of Illinois: The Resolutions Committee recommends the passage of the substitute.

CHAIRMAN DORSEY: What is your pleasure regarding Resolution No. 7?

MR. MENDELS of New York: Mr. Chairman: I move its adoption. The motion was seconded.

CHAIRMAN DORSEY: It has been moved and seconded that this Congress adopt the substitute for Resolution No. 7, which has been reported by the Committee on Resolutions. Are you ready for the question?

The motion carried unanimously.

The substitute for No. 7 will be found on page 174.

MR. BENJAMIN: The Resolutions Committee reports favorably on Resolution No. 35, offered by Mr. Utter.

CHAIRMAN DORSEY: What is your pleasure, gentlemen, regarding the resolution?

MR. MENSCH, of Arizona: Mr. Chairman, I move its adoption. The motion was seconded.

CHAIRMAN DORSEY: It is moved and seconded that Resolution No. 35 by Mr. Utter, be adopted. Are there any remarks?

JUDGE RAY, of Nevada: Mr. Chairman, here is a short, very appropriate resolution. Now, you are getting down to actual facts and conditions that exist as between the forest reserve and the miner. You never saw a miner in your life but who tried to protect the timber around his mine, and if the forest reserves would work with the miner in protecting the timber we would have fewer forest fires and less timber burned off our forest reserves than we have had heretofore. If you will turn the miner loose in these forest reserves he will protect them, and there will be no forest fires.

CHAIRMAN DORSEY: Are there any further remarks?

The motion was put and carried unanimously.

The resolution appears on page 181 of this report.

MR. BENJAMIN: Mr. Chairman, in regard to Resolution No. 30, introduced by Mr. T. E. Gibbon of Los Angeles, the Committee desires to report that they have prepared a substitute for the resolution which has been submitted and unanimously adopted by the Committee.

CHAIRMAN DORSEY: The Secretary will read the substitute. The Secretary read the substitute.

CHAIRMAN DORSEY: What is your pleasure regarding the resolution just reported?

MR. JONES, of Nevada: Mr. Chairman, I move the adoption of the substitute resolution as read.

The motion was seconded.

CHAIRMAN DORSEY: It has been moved and seconded that the resolution as read be adopted. Are there any remarks?

The resolution was unanimously adopted and will be found on page 180 of this report.



MR. BENJAMIN: Mr. Chairman, your Committee on Resolutions reports back Resolution No. 34, introduced by Mr. C. K. Hershey of Los Angeles, with the recommendation that it lie on the table.

CHAIRMAN DORSEY: What is your pleasure regarding this resolution?

MR. MENDELS, of New York: Mr. Chairman, I move that the report of the Committee be received and that the resolution be laid upon the table.

The motion was seconded.

CHAIRMAN DORSEY: Gentlemen, you have heard the motion that the resolution be laid upon the table. Are there any remarks?

The motion to lay on table carried unanimously.

MR. BENJAMIN: In reference to Resolution No. 32 by W. W. Bass of Arizona, it is referred back to the Congress without recommendation.

CHAIRMAN DORSEY: What is your pleasure?

GENERAL SAMPSON, of Arizona: I think there is nothing that has been brought before this Convention that is of more importance to the miner than this very resolution, for this national reserve as is proposed by that Senate bill covers up a great section of mineral country and prevents the miner from developing it. Not only that, but it prevents the building of smelters, and it prevents the building of railroads in from the north side. It prevents the establishment of any more summer resorts all along that grand Canyon. That is forever to be a monopoly. This reservation is not wanted; it is an injury to the country at large, and especially to Arizona. There is also a preamble accompanying this resolution, and I hope that the gentlemen will demand that that full report be read unless you are satisfied that this is a meritorious case. If you hear the entire report, or the preamble and the reasons, you will never vote against the adoption of this measure remonstrating against the passage of the Senate bill establishing a national park.

MR. BASS, of Arizona: Mr. President, Ladies and Gentlemen: My object in presenting this bill was to see if I could not stop this reservation business. I am already on three reservations.

CHAIRMAN DORSEY: Mr. Bass, if you will just wait for a moment I will ask the Secretary to read this. The length of this resolution precludes careful consideration in the limited time we have here. I think this is a very meritorious proposition, and if you could have put it upon one page the Committee could have considered it, but there is so much to it that we referred it back to the Congress for the purpose of having it read.

The Secretary then read the preamble accompanying the resolution.

GENERAL SAMPSON: As the resolution is referred back without recommendation, I now move that it be adopted.

The motion was seconded.

CHAIRMAN DORSEY: You have heard the motion on the adoption of the resolution. Are there any remarks?

GOVERNOR GOSPER: Mr. Chairman, as a former resident of Arizona, I have given some thought to that Grand Canyon, and have been in it. I was about to take the floor when my homely friend cut me off. Now, I want to say to the members present that while I do not think he knows, naturally, any more than I do, yet on this question he is much better informed.

Now, I apprehend that there are people here in this body who are not sufficiently familiar with the facts as they now exist, and I favor, however, the motion that has been made; but I suggest, sir, that General Sampson be requested—I was just going to make the request that he talk in my place, and now I will take my seat if General Sampson will make a brief review of the situation and give us a few reasons why that resolution should pass. I do not need any reasons myself, but I would like to have him advise this Congress of the reasons which exist for the passage of that resolution.

GENERAL SAMPSON: Mr. Chairman, it does seem to me as though the presentation in that paper is so clear that nothing more is needed to be said, for it shows that there is timber in unlimited quantities, and mineral, and all of these are attempted to be covered by this national park. Now, let it be deferred, as the proposition is, until the government, by the proper bureau, may make the proper investigation and see whether that should be done or not, see whether it is not to the interests of Arizona and the interest of the United States to leave that park alone, and leave it open for the miner, for the timber men, leave it open for the development that is sure to come, and that is all that is asked, simply to stop action in the Congress on that Senate bill. That is the object, and the value of it, of the resolution. We do not say that it shall forever remain or that no part shall be adopted by Congress, but we simply say let the matter be deferred until the proper investigation can be made and see whether it is right that a park ought to be established there or not, and they will find that it ought not to be. (Applause.)

GOVERNOR GOSPER: Just one word more that occurred to me while the General was talking. It might be wise to refer this resolution to the Bureau of Mines with instructions from these delegates here that it investigate the facts and make a recommendation to the United States Congress.

GENERAL SAMPSON: It would have more effect if this Congress recommends to the Senate not to pass that bill.

GOVERNOR GOSPER: I am in favor of that myself.

MR. WRIGHT, of Nevada: Mr. Chairman, I do not know very much about this proposition, but it does seem to me there cannot be any special harm done by asking Congress to hold this thing in abeyance a little while, and I believe these gentlemen know what they are talking about. I think if they want that thing put off a little while they ought to have it, and this Congress ought to help them to have it done.

MAJOR MENSCH, of Arizona: Mr. Chairman, I desire to say that before that resolution was submitted here I read it over very carefully, and I know something about the conditions that prevail there. I was in that Canyon before they ever had any hotels there. I know what the situation is, there. Now, I think it is the duty of this Congress to take action on this thing, and I certainly hope they will adopt this resolution.

MR. EVANS, of Utah: Mr. Chairman, has this reservation been set apart by the Department at the present time?

GENERAL SAMPSON: No, but a bill is pending providing for

MR. EVANS: But it has not yet been made into a park?

GENERAL SAMPSON: No.

MR. EVANS: I just want to say, Mr. Chairman, and Gentlemen, that, of course, I know but very little about this matter, excepting what is presented here. The thing that appeals most strongly to my

mind in favor of it is the fact that they are asking that this matter be delayed until Arizona becomes a sovereign state, at which time its representatives in the Senate and House may have a voice in this matter. That appeals to me very strongly and very logically. For that reason I feel like voting in favor of the resolution. (Applause.)

MR. HULL, of Arizona: Mr. Chairman, I am probably more familiar with these circumstances than any man in this audience.

A few years ago some miners went in there and made some discoveries, which brought the Grand Canyon to the front, and they went to work and built railroads in there before the Santa Fe had any connection with the Grand Canyon, and the passage of this bill, I believe, would destroy the rights of those miners in that canyon. I do not believe it is just that they should preserve all the timber for 150 miles by 40 to 60 miles. They go to work and reserve this and then turn around and turn over to capitalists the land of which they have thousands and thousands of acres, depriving the miners of their right to use this land and requiring them to go to these people and buy their lumber and their timber.

CHAIRMAN DORSEY: The motion is on the adoption of this resolution that has been read. Are you ready for the question?

The motion carried unanimously.

CHAIRMAN DORSEY: The resolution is adopted. The Secretary will now present a resolution to the Congress.

SECRETARY NORMAN: This is a resolution prepared by myself.

Resolution No. 39.

(By Sidney Norman.)

Realizing the immense importance of the Territory of Arizona as a copper producer and remembering the fact that it will soon take its belated place in the Union, the American Mining Congress hereby respectfully suggests that its directors carefully consider the invitation of Douglas and if proper arrangements can be made commit this Congress to meet at Douglas for the 1911 Convention, as recognition of the splendid men who have made the Territory the leader among copper producers and as a graceful and merited compliment to our new State.

MR. BENJAMIN: The Committee desires to report back Resolution No. 14 by Charles P. Fox of California, with the recommendation that it do not pass.

The Secretary read the resolution.

MR. McCALLUM, of California: Mr. Chairman, I move that the recommendation that this report be laid upon the table be adopted.

The motion seconded and carried unanimously.

MR. BENJAMIN: Mr. Chairman, your Committee on Resolutions beg to report resolution introduced by Lewis E. Aubury in reference to the elimination of mine fakers do not pass, for the reason that the points discussed in the resolution have been covered by Resolution No. 15 already adopted by this Congress.

SECRETARY NORMAN: This is the address by State Mineralogist L. E. Aubury on the elimination of the mine faker, which was submitted to the Resolutions Committee for action. The report of that committee says: "The points discussed in this resolution are fully covered by Resolution No. 15."

CHAIRMAN DORSEY: It is recommended that it be laid upon the table. If there is no objection that will be the course taken.

MR. BENJAMIN: Resolution No. 23, by B. L. Worthen of Arizona. We recommend that this resolution do not pass, because the Bureau of Mines was established to deal with these questions.

CHAIRMAN DORSEY: What will you do with the report of the Committee?

MR. B. L. WORTHEN, of Arizona: Mr. Chairman, I would like to have the resolution read and to say a few words on it.

The Secretary read the resolution.

CHAIRMAN DORSEY: Gentlemen, what is your pleasure regarding the resolution just read?

MR. MENDELS, of New York: Mr. Chairman, I move that the report of the committee be received and the resolution read be laid upon the table.

The motion was seconded.

MR. B. L. WORTHEN, of Arizona: Mr. Chairman, in furtherance of this resolution as presented I would state this—That about two years ago I went to the office of Mr. Callbreath, the Secretary of the American Mining Congress, and discussed with him at some length the conditions under which the miners were working in the mines as to the drilling of dry holes in mines. Now, one who has been underground and has seen the conditions that confront the miners, and takes into consideration the adoption of the new machine that has come out in the last two or three years, and is used very extensively, known to us as the stoping drill, might realize the possibilities of what is coming in the next few years to the miner. When you go down into mines and see the dust so thick there that you cannot see, and realize that the miners are breathing this dust all of the time I think that you will agree that the government should take some steps to protect the miner as well as to protect those who work on top of the ground. Now, when you take the miners' condition there, and consider the possibility of contagion among the men working there underground where the sun never shines and never gets a chance to kill off the germs, you can realize what will happen in a few years if that condition is allowed to prevail. For that reason, I bring this matter to the attention of the Congress and the mining men, more particularly the dangers that are facing the underground miners. Now, it has been known that by the use of mechanical devices you can, to a great extent, eliminate these troubles and make the air underground almost as pure as on the surface, but through the greed of mining operators in trying to get more and more out of the camp, miners are absolutely overlooked; and, more than that, the class of miners we had a few years ago, who were American miners, men who took some steps to safeguard their interests, are now being replaced by a lower class of miners—foreigners who absolutely have no sanitary conditions. You can walk into some of the largest mining camps in this country and find this same condition in the bunk-house in which these men sleep. One man sleeps in a bed who is working on day-shift, and another man who is working on night-shift will sleep in the same bed. Now, when you think of what problem is facing us and find that this is going to be a source and a hot bed of contagious disease I think it is time for this Mining Congress to wake up to this fact and take action, as they have done in Great Britain, where they have passed laws to protect those whom we consider the lowest down class of men, ignorant slaves or negroes. They have laws to protect these men under the very same conditions which I have cited here. (Applause.)

CHAIRMAN DORSEY: I will say for the benefit of the gentleman that the question that he raises here should be and will be considered by the Bureau of Mines. It is local in its character, and we cannot attempt to advise regarding the different diseases that the

miner is heir to. What he says with reference to the night and day shifts occupying the same beds is absolutely true in too many camps. The Inspector of Mines should see to that; he has done so in Idaho. I do not know about Arizona, for I have had but little experience in that state. What is the pleasure of the Congress regarding this resolution? It is information, that is all. If there is no objection this matter will be referred to the Bureau of Mines—I will take that responsibility here now—without recommendation.

MR. BENJAMIN: The Committee reports Resolution No. 27, introduced by Major W. A. Mensch of Arizona. We recommend that this resolution do not pass for the reason that it appertains to business of a private nature.

CHAIRMAN DORSEY: I will say to the Congress that this resolution is in reference to the United States Agricultural and Industrial Exposition, and we cannot in this Congress give endorsement to any private enterprise of the kind. We had an experience some years ago in New York and it was disastrous. We were importuned until we gave a quasi endorsement of a great exhibition that was to be made in Madison Square. The gentleman was a good promoter and the Congress listened to him, against the advice of some of us, and he made a most miserable failure of it. I hope this will be a success, but the Committee on Resolutions, in considering this, have to recommend that it do not pass.

MAJOR MENSCH: Mr. Chairman, may I have just a word? In our neighboring country to the north, Canada, they have a permanent exposition such as this is to be. It is not an individual exposition, but they have their Advisory Board that is taken from every state and territory in this Union. All of the experimental stations established by this government in the various states are represented, the directors of those institutions being upon this Advisory Board. They have members of the Advisory Board in all of the various industries, of which one is mining. The probability is that this will be located in the City of St. Louis as the nearest city to the center of population, and easy of access, climatic conditions also being taken into consideration.

I want to see every man present here who has a prospect or a mine or is engaged in fruit raising or any other industry exhibit his choice products at this exposition, and it don't cost you a nickle, and there is not anything that I know of today that gives a man who is raising fruit, who is making his living from the earth, a better opportunity to show and to advertise his wares so that everybody may see them, and then he can go to the register and know whether that man that is exhibiting there has a legitimate proposition or not. That is my reason for bringing this matter up here. We ask nothing from the Mining Congress except that they express their opinion as to whether it is a good or bad feature.

CHAIRMAN DORSEY: What is the pleasure of the Congress regarding the report of the Committee on Resolutions recommending that this resolution be laid upon the table without action? It will take that course unless there is a motion made or objection raised.

JUDGE RAY: Mr. Chairman, I move that this resolution be read so that we can hear it and give everybody a chance.

The Secretary read the resolution, which is found on page 67.

CHAIRMAN DORSEY: If the Congress wishes to go on record endorsing an enterprise of that kind it may do so. It is a private enterprise.

MR. H. S. McCALLUM: Mr. Chairman, I move the adoption of the report of the Committee.

The motion was seconded and carried unanimously.

CHAIRMAN DORSEY: Mr. Mensch introduced a resolution that was referred to the Committee and it was reported back with the recommendation that it be passed. He has, since we have been in session this afternoon, presented a substitute for that resolution. Out of courtesy for him, I will ask the Congress now to consider this substitute, which I will ask the Secretary to read. I will say that you can have no further meeting of the Committee on Resolutions; this is the last that we will report. Any further resolution that may be offered after this time will not be referred to the Committee on Resolutions but will be taken up directly by the Congress. The Secretary will please read this substitute for Resolution No. 31.

SECRETARY NORMAN: The substitute resolution is as follows:

Resolution No. 37.

(Introduced as Substitute for No. 31.)

Whereas, The unrestrained waters of the Colorado river are a frequent cause of trouble to several adjoining states, and also have been the cause of international questions arising between Mexico and the United States.

Be It Resolved, That we recommend the National Congress to authorize the War Department to aid in the erection of a suitable dam at the most dangerous point on the Colorado river, that will prevent future trouble of this nature, and also serve to conserve these waters; thereby converting them into available power, without interfering with vested interests of any kind. Furthermore we believe that the immediate development of the Hydro-Electric power on this river would prove to be a National asset of untold value.

CHAIRMAN DORSEY: What is your pleasure with the resolution?

JUDGE RAY: I move the adoption of the resolution.

MR. EVANS:, of Utah I move that the report be sent to the Irrigation Congress.

CHAIRMAN DORSEY: My friend is out of order.

MR. MENDELS, of New York: Mr. Chairman, I move that the resolution be laid upon the table.

MR. THOMAS FELLOWS, of California: Mr. Chairman, I second the motion to adopt.

CHAIRMAN DORSEY: It is moved and seconded that we adopt Resolution No. 37, which is a substitute for No. 31, offered by Mr. Mensch. Are you ready for the question?

MR. MENDELS, of New York: No, sir. Mr. Chairman, I move as a substitute, as this question was thoroughly threshed out in the Resolutions Committee as being an entirely local matter which this Congress did not deal with, that that resolution lie on the table.

The substitute motion was seconded and carried.

CHAIRMAN DORSEY: The motion is carried, and the resolution will lie upon the table. The Secretary will now read a letter from Governor Sloan.

September 28, 1910.

Hon. Sidney Norman,
Chairman, Convention Committee,
American Mining Congress,
Los Angeles, California.

Dear Sir:

I regret to be compelled to write that I am prevented by public business from attending the Mining Congress this week, and, as it is

too late to send a representative, I enclose you herewith a short statement of my views on the subject of conservation as it effects Western development which I should have expressed if I were present. I will be obliged if you will have some one read this paper on Friday morning if you consider it worth while. There are a number of gentlemen from Arizona who I feel sure would be willing to read the paper. I suggest in this connection Mr. LeRoy Anderson of Prescott, if he is present, or Col. Powell, of Bisbee. I do not have their addresses so cannot write them directly.

Regretting that I shall not be able to attend the Congress and with best wishes for its success, I remain,

Very truly yours,

RICHARD E. SLOAN,

Governor of Arizona.

CHAIRMAN DORSEY: It is my pleasure now to introduce to you one of our new directors, Colonel Powell, of Arizona, who will read a paper prepared by Governor Sloan. I hope he will precede that with thanks, and say some nice things, as he is abundantly able to say, and I am satisfied, gentlemen, that he is going to make a most valuable director of this Congress. His work on the Committee on Resolutions showed me that the stuff is in him, that his heart is in the right place, and you will see that he will be a great favorite with the ladies who come to this Congress.

MR. POWELL: I wish to thank the Chairman for his remarks, and particularly for his reference to the ladies.

It strikes me that the American Mining Congress has at last come into its own. For a great many years people were very much at sea as to the results of the efforts of the American Mining Congress. A great many prominent mining men throughout the country did not lend the aid to it that it was entitled to. I speak of this advisedly, because I have talked to a great many of them and know how they felt about it. Somehow the idea got out that it was not to be an institution to further particularly the interests of the mining industry, but an institution of some other sort, nobody knew just exactly what; but I think that its work in the last few years, and particularly last year, has demonstrated beyond any question of doubt what it is capable of doing, and I think this session has been one that will bear good fruit.

I was honored by you last night by being elected as a director, and we had our first session today, and from what I see and know of the board of directors I think you have a good one, with the possible exception of myself, but I shall endeavor to do all the work I can to further the interests of mining men and the work of this Congress, but we must have the assistance of the members. People come to meetings of this sort and they select men to take the offices and go home and say, "Well, we had a good meeting, and we had a good time; lots of matters of interest were brought up and discussed, etc., and we had a good time in Los Angeles, and it was all right, the session was a success." But that is not what makes the American Mining Congress and gives it the opportunities to do the good that it is capable of doing. We must each and all of us take a material interest in it, and I hope that every man who has been here, when he goes home, will go home feeling that this organization is worthy of his support and the support of his friends (applause) and that he will constitute himself a committee of one to try to further its interests by getting more members.

I do not know why I should have been asked to read this paper from our Governor, but I consider it an honor to do so. I believe the Territory of Arizona has one of the greatest governors of any Territory or State in the Union. (Applause.) He is a man who stands high in the eyes of the nation as well as he does in the eyes and hearts of the people of the Territory of Arizona, a sensible, conservative man

that we all look up to and respect, and whenever he makes an utterance we all listen with great interest, because we know he is going to say something that will be of good to us.

The paper prepared by Governor Sloan, and which I have the honor to present to you, is as follows:

Governor Sloan's paper is found on page 294 of this report.

GOVERNOR GOSPER: Mr. Chairman, it is my pleasure to move that it be the regret of this Congress that Governor Sloan could not have been here to present his paper personally, and in the same motion to thank him for the very able paper that has just been read.

The motion was seconded and carried unanimously.

CHAIRMAN DORSEY: Arizona is soon to be a state; it should have been years ago. New Mexico came very near entering the Union thirty-four years ago. It failed because the delegate happened to make an unwise remark. Mr. Elkins spoke too soon. Now, we have heard from Arizona through its Governor and its able representatives on the floor of this Congress. We have here with us a gentleman from New Mexico, Dr. H. M. Shields, whom I will ask to say a few words on conservation and the interests of New Mexico upon that subject.

Dr. Shield's address will be found on page 326 of this report.

GOVERNOR GOSPER: Mr. Chairman, inasmuch as this American Mining Congress has had one session in Nevada, and is just closing another in California, and I think it is due Arizona as one of the mining centers of America that the next session of this Congress should be held within its limits; I therefore move you, sir, that it is the request of this convention to the officers and directors of the same that they shall designate Douglas, as per the resolution of Mr. Norman, as the next place of meeting.

GENERAL SAMPSON: Mr. President, I will not offer any amendment, but I would prefer that the gentleman make his motion broad enough so that it says that we want the next convention to be in Arizona, and leave it with the Board of Control to decide what particular place. We have no objection to offer against Douglas. Our arms will be wide open if they decide to come to Phoenix, but we are not entering into competition with Douglas at all. I think the best plan would be to resolve here that we want it in Arizona.

GOVERNOR GOSPER: I will modify my motion.

CHAIRMAN DORSEY: If the Governor will suspend just a minute we will have the resolution introduced by Mr. Norman read to the Congress and will consider it now.

SECRETARY NORMAN: This resolution was prepared in the knowledge that only one official invitation has been received from the Territory of Arizona up to the time of its preparation. That invitation was from the city of Douglas and is in official form here in the shape of a telegram from the Chamber of Commerce and Mines of Douglas. There had been no invitation from Phoenix in an official way, and therefore this resolution was prepared with that idea in mind.

GENERAL SAMPSON: Pardon me for saying this—that we have at all times been ready and more than willing to receive the next Congress, but we did not feel that we would enter into competition with Douglas, because there are many reasons why that place might be selected; but we have thought that the best plan would be to leave unite and say Arizona, and leave it with the Committee after they have looked into the matter, and if Douglas is the place, we say go to Douglas, and we will be with you.

CHAIRMAN DORSEY: The Secretary will read the resolution now, and if the Governor wishes to make an amendment to strike out or substitute the chair will entertain the motion.

SECRETARY NORMAN: I have already amended this resolution so that I think it will cover the point, and I would like to substitute it for the one already read:

The Secretary read the substitute.

GENERAL SAMPSON: I move the adoption of the resolution.

GOVERNOR GOSPER: I second the motion as amended. I am fairly familiar with Arizona; I have been all over the Territory on burros and stages long before the cars got into that country. If it were left to me today to name the place where this Congress should have its next session it would be Phoenix, most emphatically, and, Mr. Secretary, you can so quote me to the people that have to do with it, and I second the motion of General Sampson.

CHAIRMAN DORSEY: Gentlemen, you have heard the motion. The question is now before you. What is your pleasure?

MR. POWELL: Mr. Chairman, I know these gentlemen here are all tired and worn out, and want to get home and get ready to go to that entertainment tonight, which we all are looking forward to with a great deal of interest, but when the Governor made that motion I was in hopes General Sampson would second it, and that Douglas would have the full and free endorsement of this body for the next meeting place. Douglas has tried to get this convention for several years, and the people of Douglas have spent a great deal of time and effort and some money in making the endeavor to get the Congress to come there. They gave way, as you will remember, at some of the other meetings to other places for the benefit of the Congress, and expected to have the same consideration shown them in the future.

Douglas is situated in a portion of Arizona, and a section of country which perhaps, to mining men, affords as much interest as any city in this country. She has within the city limits two of the greatest copper reduction works in the world. Within sixty or seventy miles south of there is one of the most modern and one of the greatest concentrating plants in the world. Within twenty-four or twenty-five miles is Bisbee, which certainly has some of the greatest copper mines in the world, with equipment that is of interest to mining men. All of these places are easily within reach of Douglas, and I am sure if you come to that country we will make arrangements that will enable the delegates to reach these places without any inconvenience. We have many attractions in and about Douglas that will interest you. In view of all these things, and in view of the efforts that Douglas has made, in view of the promises that have been made to it, and the fact that they have given way to other places for the benefit of this organization, I was certainly in hopes that General Sampson, whom I know would give us a royal welcome if we should go to Phoenix, would give way to Douglas's request.

GENERAL SAMPSON: I want it distinctly understood that we are not fighting Douglas in this matter at all. I only thought it better to leave it open so that the Board of Directors, in their wisdom, if developments should happen to be such—for instance, an epidemic of some kind of fever or something in Douglas or Phoenix (laughter) the Board could arrange to go to the other city. We are not fighting Douglas by any means. I want to go there. But leave it open and let the Board, as the constitution and by-laws provide, decide when the time comes. So the motion might be adopted as it is.

MR. WORTHEN: Mr. Chairman, I want to call attention to the fact that the large number of members of the American Mining Con-

gress is in the particular section around Douglas, but I think the best thing to do is to leave the matter open to bids and let the one putting up the most money get the Congress.

GOVERNOR GOSPER: I understood that it was so arranged that the motion was to have the Congress meet either at Douglas or Phoenix and leave the question as between those two cities to be determined by the Board of Directors.

CHAIRMAN DORSEY: This is simply a recommendation from the Congress to the Board of Directors.

The motion was put and carried unanimously.

CHAIRMAN DORSEY: The Secretary will report to the Directors the action of this Congress. We will now take a recess until tomorrow morning at ten o'clock.

An adjournment was thereupon taken until October 1, 1910, at 10 o'clock A. M.

SATURDAY, OCTOBER 1, 1910.

Morning Session.

President Buckley in the chair.

PRESIDENT BUCKLEY: The Congress will please be in order. The Secretary has some announcements to make.

SECRETARY NORMAN: I am sure we have all been inexpressible shocked at the terrible disaster which occurred this morning, and it is particularly difficult for me to speak upon the subject, because I was connected with the Los Angeles Times as its mining editor, and through that connection I was able to make a start in my acquaintance with the mining men of the Southwest. Every man in that building who was there last night was known personally to me. And I expect your feelings were perhaps as mine were. I was up there last night and saw the terrible condition of the conflagration there, and I am sure it has almost put me out of business. I have endeavored, however, to prepare a resolution that will express the feeling of the American Mining Congress. The resolution is as follows:

Resolution No. 40.

(By Sidney Norman.)

The American Mining Congress, almost at the close of one of the most important and most enjoyable conventions in its history, is inexpressibly shocked at the terrible disaster which wrecked the establishment of the Los Angeles Times, early this morning.

It extends to the Times, the widows, orphans and relatives of those who have been taken, its deepest sympathy and hopes that the blame will be promptly and properly placed and the culprits, if any there be, adequately punished.

SECRETARY NORMAN: I move the adoption of the resolution. The motion was seconded.

PRESIDENT BUCKLEY: I think the resolution as read is entirely appropriate. The motion is made and seconded—and, with the permission of the Congress, I will supplement this motion—that the rules of the Congress be suspended and that the resolution as read by the Secretary be passed at this time.

The motion carried unanimously.

MR. DORSEY: I move you, gentlemen, that a vote of thanks of this Congress be extended to our worthy President, Doctor Buckley, for the able and efficient manner in which he has presided over the deliberations of this body; also to Mr. Sidney Norman, our efficient Secretary, for the arduous labors he has performed.

This motion was seconded by many delegates.

MR. DORSEY: Gentlemen, this is not open to debate. You have heard the question. All who favor this resolution will manifest the same by a rising vote.

Doctor Buckley and Mr. Norman, you have the thanks of this Congress for your splendid services.

PRESIDENT BUCKLEY: My friends, there is perhaps no one more interested in the work of the American Mining Congress as it affects the mining industry than myself; and I wish further to say that my labors in the interests of the American Mining Congress have not been finished until the time when I am relieved of the responsibility and the care of the administration of the affairs of this organization. I am very glad, and it gratifies me very much, to announce that Mr. John Dern has been elected by the Board of Directors as my successor. Mr. Dern has been a very able and efficient member of the Board of Directors for a longer period of years than I have been connected with that body, and it is an honor to Mr. Dern to be selected as president of this organization, it is an honor which he deserves, and I assure you that he will do everything that can possibly be done to maintain for this organization the high standard which we have attempted to attain during the last few years of our history. I trust that every member of the American Mining Congress will give Mr. Dern his heartiest and his most enthusiastic support. I still retain my position as a member of the Board of Directors, and in that capacity may be able to assist the Congress in the conduct of the official business of the organization, and as far as my abilities and my energies are concerned, I expect to continue to render whatever service is in my power for the up-building of the mining industry of this country. I believe firmly that there is no class of men, that there is no industry in this country today, which has received or which is receiving so little consideration and so little regard by the public as is this industry, and if the American Mining Congress can educate the people of this country to respect mining as a business and to understand the important part which it plays in our industrial and commercial life I think it will have rendered a most useful service to this country, and it is the development of the country at large that we are seeking—an honest, just and upright development of the country at large.

Now, gentlemen, I appreciate the courtesy you have extended to me during the week. I have never presided over a body of men where such uniform courtesy has been extended the presiding officer, and I assure you it is a source of very great satisfaction to me to know that there has been no friction, no ill feeling, and that everything has been harmonious throughout the sessions of this organization in Los Angeles. I trust that we will all meet together again next year.

GOVERNOR GOSPER: In Arizona.

PRESIDENT BUCKLEY: If it should be in Arizona, I trust you will all be there. If it should be in Washington, I trust you will all be there. If it should be in Chicago, I trust you will all be there. And even though it should be the decision of the Board of Directors to meet in Alaska, I hope you will all take the steamboat trip to Alaska. And let me tell you this, members of the American Mining Congress, that you can depend upon it that the Board of Directors will endeavor, as far as their abilities may aid them, to select that place for the meeting of the American Mining Congress which will be in the interest of the Congress and of the mining industry at large. (Applause.)

I wish again to thank you very much for your courtesies during my stay in this city.

MR. DORSEY: Mr. President, there is another officer of this organization that we have missed from the platform during the sessions of this Congress. I can testify to the earnestness and the ability with which he has served us, and he has felt keenly his inability to be here and take part in these proceedings. I refer to our able secretary, Mr. Callbreath. Some of you may not know that he has had a very serious affliction of his eyes and he cannot bear the light. Now, I move you, Mr. President, that a vote of sympathy be extended to our worthy secretary, Mr. Callbreath, with the hope and wish that he may soon recover the use of his eyes and his health.

The motion was seconded by numerous delegates, and carried unanimously.

SECRETARY NORMAN: Mr. Chairman and Gentlemen of the Convention: I am very glad of the opportunity to thank you for your kindly resolution. I understand why the vote of thanks was given to me, and I appreciate it fully. It is not anything I may have done individually, I know; it is an expression from you that the Sierra Madre Club has made good, and that is about as big a reward as I require in work of this kind. I think, Mr. Dorsey, that that resolution should have included the name of the one man who has made the Sierra Madre Club and the meeting in this city of the American Mining Congress possible. (Applause.) It is an easy matter to get men to work, but it is a difficult matter to find a man who has both the money and inclination to do a public work for which he can gain absolutely no return. There are few men I know or have ever known who will go to the length in the promotion of a movement for the public good in which he is interested that Mr. Montgomery has gone. I therefore think that resolution should have included his name.

A DELEGATE: I move that it be included.

CHAIRMAN DORSEY: Just a moment, gentlemen. Mr. Norman forgets what we did here yesterday when we thanked the Sierra Madre Club and Mr. Montgomery and Mr. Norman by name in a resolution reported by the Committee on Resolutions, and I am sure there is no man who appreciates more than I do what Mr. Montgomery has done. I happen to be on the inside, and I know how his influence went, and, what is more, how his money has gone, and his time, his trip to Washington, and all those things. I tell you, none of you have a higher regard for Bob Montgomery than the "Old Man" has. (Applause.)

SECRETARY NORMAN: I understand that, of course, Mr. Dorsey; but I wanted to have an opportunity to tell you who is responsible for this Convention. And while I am here, Mr. President, and Ladies and Gentlemen, I would like to say one word: For the past six days I have been attending to these secretarial duties and my mind and my time have been pretty fully occupied. I do not think, though, that I should permit the resolutions that were adopted on the subject of conservation by this Congress to go on record without a little protest, because I was unable to cast my vote. I do not think that those resolutions have been broad enough to express the big-heartedness of the Western miner. I have the utmost admiration for the miner. I stand before you as the Secretary of the Convention and the editor of a mining paper. I have worked under ground three years of my life; I have pushed the burro across the desert; I have prospected in Death Valley and in Alaska and in British Columbia, and I do not think there is a man on earth who is more ready to do something for his fellowmen than the miner. (Applause.) You are told that opportunities are equal in the United States. It is not so. You know and I know and every man within reach of my voice knows that opportunity is not equal. Go back to Pittsburg, go back to the East Side of

New York City, go back to Cleveland and look at the poverty and the misery you find there. Why should not the miner of the West be willing to give up a little of what God gives him in this big, broad country for the help of his fellow-men in the East? As I understand the theory of conservation, the government is going to endeavor to exact from the man who has the opportunity in this country to give up a little something for the lessening of taxation in the East. That is my idea of conservation, and I do not understand why a mining organization should go on record against such a plan.

I have heard a great deal said about the prospector during this meeting. I have been a prospector myself, and I do not believe there is any man on earth who requires less sympathy than the prospector of the West who does nothing all day but inhale the good, fresh, God's own air, and against his condition I consider that the poor fellow back East who is inhaling a fetid atmosphere throughout his life as immeasurably inferior, and I want to go on record as being willing to help that man back East. (Applause.)

MR. STEIN: Mr. President, I have a resolution I would like to offer by consent of the Congress.

PRESIDENT BUCKLEY: The Secretary will read the resolution.

Resolution No. 41.

Resolved, That the sincere thanks of the American Mining Congress is hereby extended to the Honorable Gifford Pinchot for his masterly address before this body, exemplifying the principles of conservation; and

Be It Further Resolved, That whatever difference of opinion may exist in regard to methods, this Congress is unequivocally in favor of the conservation of our remaining natural resources.

MR. STEIN: Mr. President, I move that the rules be suspended and that that resolution be passed.

The motion was seconded.

PRESIDENT BUCKLEY: The motion is made and seconded that the rules of this Congress be suspended and that we take up the consideration of this resolution at this time. Are you ready for the question?

GENERAL SAMPSON: Mr. President, it occurs to me we had better not commence that. Mr. Potter and other gentlemen have delivered magnificent addresses before this body—

PRESIDENT BUCKLEY: A motion for the suspension of the rules is not permissible.

MR. MENDELS, of New York: Mr. President, I move, as a substitute, that this resolution be laid on the table.

The motion was seconded.

PRESIDENT BUCKLEY: The motion is made and seconded that this resolution be laid on the table. Are you ready for the question?

All those in favor of the motion will signify by saying aye; contrary no. The chair is unable to decide. All those in favor of this motion will signify by rising; those of the contrary opinion rise.

The result was 26 in favor; 12 against.

PRESIDENT BUCKLEY: The motion to lay the resolution on the table is carried.

PRESIDENT BUCKLEY: Members of the American Mining Congress: I took half a day's absence from the Congress yesterday, and was not here when the resolutions of thanks were passed, and I had

supposed this morning that all resolutions of thanks necessary and needful in connection with this organization had been passed until a motion was made by Colonel Dorsey this morning thanking the officers of the Congress for their efficient services. I have served on the Board of Directors with one gentleman for a number of years. The gentleman to whom I refer has perhaps not occupied any office in the Congress, any conspicuous office at least, or any office which might bring him before the Congress and before the public at large, but you know as well as I do that it is not always the men who are conspicuous the men who are in the public eye, who render the greatest service to the people. It is very frequently the men who stand behind the scenes and do the work. Now, next year will be the first year for at least six or seven years that Colonel Dorsey will not be a member of the Board of Directors of the American Mining Congress. I have known Colonel Dorsey intimately, and I know that Colonel Dorsey's heart and soul have been wrapped up in the work of this organization. I know that he only gave up his position as a member of the Board of Directors because he thought it was wise that some new man should be placed upon the Board, that we should have the benefit of some new blood in the administration of this organization; and while Colonel Dorsey will not, during the next year, be a member of the Board of Directors, we who know him will understand that he will at all times hold himself subject to the commands of the President and of the Board of Directors and of the members of the American Mining Congress. We know that he will render service to this organization and to the mining industry wherever opportunity may present itself, and I wish at this time that this Congress would express to Colonel Dorsey its appreciation of the labors which he has performed in behalf of this organization and in behalf of the mining industry.

GENERAL SAMPSON: Mr. President, I move that a vote of thanks be extended to Colonel Dorsey for his proficient service to this Congress.

The motion was seconded and carried unanimously.

MR. DORSEY: Mr. President, I will confess that there is no organization with which I am connected for which I am willing to labor more sacrificially than for the American Mining Congress. I helped to organize this Congress in Denver fourteen years ago. We rounded up quite a delegation from the state of Utah, and went over in force. We had some good Mormon friends, like George Hugh Cannon, who was afterward First Councillor of the Mormon church, Ucle Jesse Knight, who is known to fame now since I sold him the Claremont, out of which he has taken many millions of dollars—and out of which I got but a few thousand—and others, and there we commenced work as the International Gold Mining Congress, and we changed it afterwards to the American Mining Congress. I was on the Committee on Resolutions of that Congress, and I will give you a little inside history. Senator Patterson—since elected to the United States Senate—and Governor Charles S. Thomas of Colorado and other prominent men were on the Committee on Resolutions with me—or I was with them rather—and when the resolution asking for a department of mines was referred to our committee, I at once told them, having had some experience in Washington, how departments were created, and up to a few weeks ago the mining department was simply a division in the Department of the Interior with an \$1,800 a year clerk at the head of it. Now, said I, to jump from that to a department with a cabinet officer at its head would be absolutely impossible, and I recommended to the Committee, and so did Governor Thomas and others, that they ask them for a Bureau of Mines. So in our resolution we struck out the phrase a "Department of Mines," and substituted a recommendation to that great Convention—I think there were a thousand delegates present—for a "Bureau of Mines." Well, virtually that Resolutions Committee was thrown right over the transom. They said, "A De-

partment or nothing! Look what an industry we have! We must have a department and we are going to have it." Well, all right, we accepted that situation. That foolishness continued for a number of years until again at Portland, with Dr. Banning on the Resolutions Committee we tried to amend and ask for a Bureau. I felt all those years that we could get a Bureau, but that we could not get a department, and that it was useless to ask for it. Finally this Congress, through the influence of my good friend Dr. Buckley and Judge Richards and Colonel Thomas Ewing and others finally asked for a Bureau, and we have the Bureau, and we have the best man in the United States for the position at the head of it. I say this to show you that it is not good policy to ask for too much at once, but to build up gradually. Well, the Congress now has a Bureau of Mines, and in time we will have a Department of Mines. It may not be within five years or ten years, but we must grow to that, and Dr. Holmes will make such an efficient chief or director of the Bureau of Mines that there is no question but what he will attract the attention of the country. Men of the East will say, "Why, there is something in this," they will take notice, and in time we will have a Department of Mines, and I propose working to that end as long as I have the life and strength to do it.

Now, those were very nice things Dr. Buckley said about me. I appreciate very highly what he has said. It is good to be commended by ones associates. We have been intimately associated together in this work for many, many years. We have done much arduous work, and I will say this, gentlemen, that we have paid our own expenses, and I have been in the past always ready to respond to the call of the officers. I have made a trip to Washington and spent two weeks there, and before I left the Committee on Mines and Mining of the House of Representatives, which contained half a dozen good personal friends of mine with whom I had served, had reported the bill that Secretary Callbreath and myself had agreed upon—from the number of bills presented we agreed upon the present law. I secured the consent of Speaker Cannon, Mr. Sherman, Vice President of the United States, who was on the Committee on Rules, and Mr. John Dalzell from Pennsylvania, those three members of the Committee on Rules, that a day would be fixed, and that the Committee on Mines and Mining should have that day, and that the bill reported should be passed. Then my responsibility ended and I came home, and we now have the Bureau, and there is a bright future for it, and I want to say to every mining man here, don't hesitate to write to Dr. Holmes, the Director of the Bureau of Mines, regarding any subject; he will be glad to hear from you and you can do him and do the cause much good if you will do that. Now, let us work together and wherever we go next year, let us all be there and make a record for ourselves and for the Mining Congress.

Gentlemen, I thank you for the unexpected courtesy and compliment you have paid me, and wish you all a safe return to your homes, and a prosperous year. (Applause.)

PRESIDENT BUCKLEY: I wish to announce that the address by S. E. Bretherton on "Hints to Ore Shippers" will be read by title; likewise the report on "Coal Tax Insurance Fund" by John H. Jones. I desire to make this announcement so that they will be a matter of record in the proceedings.

I wish also to announce that this specimen of zinc ore which was so kindly presented to me by my friends from Good Springs must of necessity remain in the City of Los Angeles, as I find that my trunk is too small to carry it, and I am afraid that it will be almost impossible for me to arrange to ship it East, much as I would like to have it. I am presenting this specimen, Colonel Dorsey, to the Chamber of Mines and Oils, with the understanding that they shall place it on exhibition as a memento of this occasion, the Thirteenth Annual Session of the American Mining Congress. I expect to take with me the

little gavel, and I shall always keep that as my memento of this occasion.

GOVERNOR GOSPER: I wish to ask if the report of these proceedings that will be printed will be sent to each of the delegates.

PRESIDENT BUCKLEY: A copy of the proceedings of this Congress is to be sent to each delegate and member, and that includes the reports of all committees and includes the discussions which have been held on the floor of this house.

The Thirteenth Annual session of the American Mining Congress thereupon adjourned sine die.

RESOLUTIONS

Adopted by the American Mining Congress at Its Thirteenth
Annual Session, Held at Los Angeles, California,
September 26 to October 1, inclusive, 1910.

Resolution No. 1.

(Introduced by S. W. Mudd.)

Resolved, That we endorse the policy of the officers of the United States Bureau of Mines in making their first concern the increase of safety in mining, and we request the extension of this work to cover metal mines as well as collieries; to that end we urge that rules and regulations for working mines be formulated in co-operation with working miners and mine operators, for guidance of Federal inspectors in the Territories, and to serve as a model for enactment by the States.

Resolution No. 2.

(Introduced by S. W. Mudd.)

Whereas, Excellent results have followed the laboratory studies of the Technologic Division of the United States Geological Survey,

Be It Resolved, That, We deem it of first importance that the United States Bureau of Mines establish a well equipped chemico-physical laboratory which shall be reserved exclusively for generic and fundamental problems, the solution of which will be of service to the entire industry—such as the safe and economical use of explosives, safe use of electricity in mines; the scientific study of the obscure chemical and physical problems that underlie important metallurgical processes—but that any commercial or private work in this laboratory be absolutely prohibited.

Resolution No. 3.

(Introduced by S. W. Mudd.)

Resolved, That we recommend that the United States Bureau of Mines make special efforts to continually collate the complete and incomplete results of all workers along lines related to mining and metallurgy, particularly on broad and generic problems—as for example the abatement of damage from smelter fumes—and to publish these from time to time.

Resolution No. 4.

As Amended by the Resolutions Committee.

(Introduced by S. W. Mudd.)

Resolved, That we recommend that the Bureau of Mines draft a form of annual report from directors of mining and oil corporations, for publication, that will enable the stockholders to form an intelligent idea of their property.

Resolution No. 5.

(Introduced by S. W. Mudd.)

Resolved, That we especially urge that reports of all investigations by the United States Bureau of Mines be given prompt publication and distribution.

Resolution No. 6.

(Introduced by S. W. Mudd.)

Resolved, That we urge that examination of all lands claimed as mineral in the National Forests be made by experts detailed for that service from the United States Geological Survey or the United States Bureau of Mines, whichever may prove the more feasible, to the end that bona fide locators be protected in their rights and prompt decision be rendered in contests.

Resolution No. 7.**As Amended by the Resolutions Committee.**

(Introduced by David Ross.)

Resolved, That the American Mining Congress respectfully recommends to the Congress of the United States that through its Bureau of Mines it secure and cause to be issued statistics and data having reference to the progress made by the governments of other countries in the adjustment and methods of payment of damages caused by mining casualties;

Resolved Further, That this Congress heartily approves and recommends proper legislation which will enable the injured parties, or their legal representatives, to secure promptly such full and complete damages as may be just in the premises and to which they may be entitled without unnecessary delays by litigation.

Resolution No. 9.

(Introduced by George W. Parsons.)

Resolved, That we approve and urge the continuation of the wise policies of the state and counties in saving life and preventing suffering in the arid regions by providing desert wells and water-saving devices; by erecting permanent guide posts directing to water, with severe penalties provided for their removal or defacement; and by protecting springs, wells and water holes from contamination under heavy penalties,

And that we recommend the cooperation of the Bureau of Mines in locating and maintaining these water sources and in disseminating accurate information concerning them, through maps, reports, and we further recommend Congressional action in the matter.

Conservation Resolutions.

(The following resolutions were drawn by the Resolutions Committee and adopted by the Congress, in which are embodied the essential portions of Resolutions Nos. 10, 11, 12, 13, 16, 22, 24 and 25.)

SECTION A.

Resolved, That, in common with citizens of the United States engaged in other industries, we approve the theory and practice of true

conservation, which means utilizing and developing with the least possible waste, the natural resources of our country.

We recognize, as men engaged in one of the most important industries of our country the value of true conservation and its intimate relations to the mining interests and recommend the enactment of such legislation, both state and national, as will bring about a beneficial development of the mines, the public lands, the public water rights, and the timber contained within our great western country for the best interests of the present and future generations without unnecessary waste.

We condemn, however, as unwise, as opposed to the best interests of the American people, and as wholly unnecessary to the success of any plan of true conservation, legislation or proposed legislation which tends to make the miners and other citizens of the public land states who invest their time, labor and capital in the development of the natural resources contained within such states, lessees of, or tribute payers to the national government.

We believe that every legitimate means should be adopted in the control of public lands to eradicate or lessen the evils of monopoly, but fail to find in any of the remedies suggested by the advocates of the leasing system how this can be accomplished by changing the present laws so as to take from the citizen a clear title and substitute therefor a lease.

SECTION B.

Whereas, The laws relating to Forest Reserves provide that nothing therein contained shall prohibit any person from entering upon such forest reservations for all proper and lawful purposes, including that of prospecting, locating, and developing the mineral resources thereof, and

Whereas, Reports have been made from time to time to this Congress, that in the administration of the rules and regulations of the Forest Service in many instances, mining and prospecting has been discouraged within the Forest Reserves, and miners and prospectors have been hampered and interfered with in the exercise of their lawful vocation, and

Whereas, Assurances have been made to this Congress by representatives of the Forest Service that in their administration of the laws relating to the public lands under their jurisdiction they will in no manner discriminate against or interfere with the legal rights of prospectors and miners, but will aid and assist them in the development of the mineral resources within the Forest Reserves.

Therefore, Resolved, That in reaffirming the right of every prospector who is a citizen of the United States, or who has declared his intentions of becoming such to enter upon and prospect every part of the public domain, we suggest and recommend a spirit of greater harmony and co-operation between the prospector and miner upon one side, and the officials of the Government on the other.

We further recommend that the laws relating to the public domain and particularly that part of the public domain lying within the Forest Reservations, be administered without burdensome and discouraging departmental rules and regulations, and in such a manner as to foster and encourage the mining industry.

We condemn the actions of any class of citizens who go upon the forest reserves, or other public lands, for the purpose of locating fictitious mining claims in order to obtain the timber contained thereon; but we ask Congress to protect the miner and prospector in the development of the mineral resources, by the enactment and enforcement of such laws as will give them the right to use such timber and other products of the soil from the public domain as may be necessary in the proper development of their mines.

SECTION C.

Resolved, That, recognizing that the right to appropriate to a beneficial use, waters upon the public lands, is fully recognized by Congress and the Courts to be wholly governed by the laws of the state wherein such waters are located, and that the development of mines and the mining industry in many sections of our country is largely dependent upon the use of water power, and that there are large amounts of undeveloped water power now running to waste on the public domain which in the interest of true conservation should be utilized and put to a beneficial use, and

Recognizing further, that the National Government is the owner of large quantities of lands bordering upon and adjacent to streams the waters of which belong to and are under the control of the states, and that by reason of such diversity of ownership and the different constructions placed upon existing laws relating thereto, water power development in the West has practically ceased, and

Recognizing further, the great expense necessarily incurred in the construction of water power plants in the mining regions, which involves in most cases an expenditure of several million dollars; the uncertain markets for power presented by the mining districts, and the great benefits derived by the mining industry by the construction of such plants,

We therefore recommend, that laws be speedily enacted which shall definitely and accurately define the rights of citizens to utilize and put to a beneficial use the waters of the streams and the rights-of-way on public lands adjacent thereto for water power purposes, and that such laws provide for the concurrent use of the rights of way so long as the water rights are put to a beneficial use under the laws of the state, or for a sufficient length of time to enable those who engage in their development to secure a reasonable return upon their investment.

We believe and therefore recommend, that for the purpose of harmonizing all interests and bringing about a proper development of water power freed from monopolistic influences, all water power sites upon the public domain should be under the control and supervision of the respective states, wherein said sites are located.

SECTION D.

Resolved, That this Congress believes that the best interests of all the people will be conserved by state regulation and control of all natural resources within the boundaries of each and every state, in the very largest measure compatible with present Federal statutes.

SECTION E.

Resolved, That any conservation policy which places obstacles or restrictions in the way of the free and unrestricted prospecting and location of metalliferous mineral lands, or which favors any lease or royalty upon the future tenure and production of such locations, is inimical to the development of our country's resources, represents a step backward, and strikes directly at the welfare and prosperity of the entire mining industry.

Resolved Further, That we endorse the work of the Forest Service in its efforts to preserve and maintain a rational consumption of the Nation's timber resources, but we are unqualifiedly opposed to any and all withdrawals of metalliferous mineral lands from public entry, and to any legislation which will in any way interfere with the free prospecting, location of or production from mining claims.

Resolution No. 15.

(Introduced by E. S. Mendels.)

Whereas, In view of the many attempts that are made to float securities of mines, oils and other industrial corporations on the unsuspecting public, which are classed as wild cats, fakes and swindles,

Be It Resolved, That it is the sense of this Congress that the following requirements for public information should be made and filed with the proper county or state authorities, such place of filing to be stated, in all cases where circulars or other matter relating to all companies who desire capital for the furtherance of their enterprise, are issued.

- 1st. Title (in full).
- 2nd. Location.
- 3rd. Product of Company.
- 4th. When and where incorporated.
- 5th. General office located.
- 6th. Transfer agency, where situated.
- 7th. Registrar of stock (must be corporation) where situated.
- 8th. Stock, common shares authorized.
- 9th. Par value of same.
- 10th. Stock, common shares outstanding.
- 11th. Shares in treasury.
- 12th. Stock, preferred shares authorized.
- 13th. Par value of same.
- 14th. Stock, preferred shares outstanding.
- 15th. Shares in treasury.
- 16th. Dividends, rate, when declared, where payable, and last dividend paid and amount.
- 17th. Bonds, state class of mortgage, when dated, when due and interest rate, when and where payable.
- 18th. Bonds, total issue authorized.
- 19th. Bonds, amount issued.
- 20th. Names of officers and directors, address and personal references of each.
- 21st. Numbers and denominations of stocks or bonds on which transfer has been stopped and the cause therefor.
- 22nd. Statements of assets and liabilities, earnings and expenses, signed by an officer of the company, with seal attached, and sworn to before a proper court officer or notary public.
- 23rd. Engineer's report. Certified and sworn to.
- 24th. Certified copy of the charter.
- 25th. Maps of the property.
- 26th. All matter printed or otherwise relating thereto.
- 27th. Certified copy of the leases.
- 28th. Confirmation of the titles, etc., certified.
- 29th. Balance sheet. From 19--- to 19----

ASSETS:

Cash on hand.
 Cash in bank.
 Accounts receivable.
 Ore and bullion.
 With smelters and bullion dealers.
 Concentrates ready for shipment.
 Bullion in vault ready for shipment.
 Ore on dump and ore broken in mine, total.
 Stores and supplies.
 Plant, tools and equipment.
 Mining rights, property, etc.
 Total.
 Grand total.

LIABILITIES:

Unpaid interest.
 Unpaid dividends.
 Notes and accounts payable.
 Trade creditors and miscellaneous.
 Officers of the company.
 Employees, for wages.
 Reserve for transportation and treatment.
 Surplus.
 Capital and surplus.
 Capital, common, preferred.
 Par value shares, common, in treasury.
 Par value shares, preferred, in treasury.
 Dividends, rate, when and where payable.
 Date of last dividend paid.
 Bonds (State first mortgage or otherwise.)
 Bonds \$----- outstanding.
 Bonds \$----- in treasury.
 Bonds, denomination (if coupon or registered.)
 Bonds, when dated; when due.
 Bonds, interest, when and where payable.

NOTES FOR GENERAL INFORMATION.

Dated at ----- 19--- ----- Treasurer.
 30th. Statement of earnings and expenses, 19-- to 19--.

EARNINGS.

Income from operation. \$
 Ore sales.
 Bullion sales.
 Ground rent.
 House rent.
 Interest on deposits.
 Other incomes.
 Gross total income.

EXPENSES.

Expenses of operation.
 Mining.
 Milling.
 Written off book inventory.
 Installation and repairs.
 Depreciation.
 Plant discarded.
 Boarding house.
 Expense of administration.
 Surplus, \$

NOTES FOR GENERAL INFORMATION.

Dated at 19--- -----Treasurer.

In case of companies other than mining similar statements of facts should be made on the same class of forms as adapted to the particular class of such corporation.

Resolved, That officials of companies, promoters, engineers, bankers or brokers and newspapers, making mis-statements of facts be reported to the Federal or State authorities for criminal action and that the use of the mails be refused and fraud orders issued for the protection of the public.

Resolution No. 17.

(Introduced by T. C. Becker.)

Whereas, It is well known that it is the uniform practice of the Railroad Companies to fix their rates and charges for transporting ores on the basis of "what they believe the traffic will bear," and not as just and reasonable compensation fixed on the basis of the cost of carrying the ores or the risk in carrying the same;

And Whereas, It is manifest, because of the weight of ore bearing rock carried in porportion to the value of the ore which can be extracted therefrom, that, except in the case of ores or concentrates which carry enormously high values per ton, there is no greater cost of transportation or risk of loss in carrying ore bearing rock which produces at the smelters \$100.00 per ton, than rock which produces \$10.00 per ton, while the railroad companies charge many times as much for carrying the former as for carrying the latter;

And Whereas, The Congress of the United States has recently amended the Interstate Commerce Act so as to confer greater power and authority upon the Interstate Commerce Commission than it has heretofore had, to investigate as to all railroad rates and to fix and regulate the same so that they shall be just and reasonable both to the common carrier and to the public, and the legislatures of various states have adopted, or will soon adopt, laws fixing maximum rates to be charged for carrying interstate freight and empowering their State Railroad Commissioners to investigate, fix and regulate such freight rates;

Therefore, Be it resolved that a special committee of three members of this Congress be appointed by the President thereof to investigate the matter of the rates charged by the railroad companies for carrying rock bearing gold, silver and other ores which are usually necessarily transported from the mines to the smelters for extracting the precious metals therefrom, and that this committee be given full power to employ with the advice and consent of the Directors of the American Mining Congress, expert assistants and legal counsel and to take such proceedings as it may deem advisable to present the matter of the railroad freight rates on such ores to the United States Interstate Commerce Commission and to such State Railroad Commission or other authorities as they may deem proper, and endeavor to procure so far as practicable, reasonable and just railroad freight rates and charges for transporting such ores.

Resolution No. 20.

(Introduced by E. A. Montgomery.)

Whereas, Numbers of men engaged in metal mining are likewise financially interested in oil production, and

Whereas, The miners of metalliferous ores are in entire sympathy with oil producers, and precisely similar conditions are to be found in lands underneath which are precious metals and oils, and

Whereas, The present mineral land laws are, in many instances, totally inadequate to safeguard the rights of bona fide locators and miners of oil and metals, and it is proposed by interested parties to enact so-called conservation laws which may further imperil already established interests and retard the development of rich mineral territory,

Now, Therefore Be It Resolved:

1. That we express our sympathy with the miners of oil, and tender them our hearty co-operation in any effort to bring about the enactment of laws which shall safeguard their rights and advance the interests of their business.

2. That, Believing there are many miners of precious metals not now interested in oil development, who, nevertheless, desire to make

investments in oil, we request the reciprocal assistance of the oil men in our effort to prevent detrimental legislation and to secure such legislation as the conditions of the mining industry indicate are imperatively necessary. We further declare that, in our judgment, it is impossible to separate the interests of oil miners and metal miners in the field of legislation, and that because of the necessary unity of interests we should join forces and work according to some agreed plan of operation.

Resolution No. 21.

As Amended by Resolutions Committee.

(Introduced by Edward H. Benjamin.)

Whereas, It is proposed to hold at some suitable place in the United States of America, during the year 1915, a great International Exposition and World's Fair, to celebrate the completion of the Panama Canal, man's greatest achievement since the world began, and

Whereas, Federal recognition of the proposed International Exposition is deemed essential to the complete success of the undertaking, to the end that foreign governments may look upon it with favor, and

Whereas, San Francisco, California, by reason of its location with reference to the mining regions of the United States, is the choice of the people residing in the mining districts of America and the people of California, without asking Congressional appropriations, guarantee a sum of money sufficient to build the greatest Exposition in the history of the world, and the one best calculated to foster and promote the mining industry, therefore be it

Resolved, That it is the sense of the American Mining Congress, in meeting assembled, that the holding of an International Exposition in 1915 on the Pacific Coast will be of great importance to the mining industry of the United States, and therefore heartily indorses the claims of the State of California, for Federal recognition and asks that such laws be enacted as will recognize San Francisco as the logical point for holding said International Exposition.

Resolution No. 30.

As Amended by Resolutions Committee.

(Introduced by T. E. Gibbon.)

Whereas, It has been the uniform policy of the United States Government in disposing of its public lands to grant title to its mineral lands only under and by virtue of the operation of the mineral laws, and

Whereas, Large grants of public land have been made from time to time and in such grants certain reservations have been specifically made as to mineral lands or the discovery of minerals thereon, and

Whereas, Under said grants, the grantees have taken possession of large areas of land which it is now claimed contain mineral, title to which, under the express terms of the grant, would not pass to the grantee,

Therefore, Resolved, That the American Mining Congress recommend to the Congress of the United States that such investigations as may be necessary shall be made by the Department of Justice and in all cases where it is found that public lands are held under any of the aforesaid grants by the grantees, the title to which, under the grant, should now vest in the United States, proper action be taken to recover the same.

Resolution No. 32.

(Introduced by W. W. Bass.)

Be it Resolved, That this Convention petition Congress to not pass any bill providing for establishing any National Parks, or National Monuments, until the Geological Survey of the United States Government makes a thorough investigation as to whether there is any mineral within the bounds thereof, and furnishes a full report of their findings to that honorable body.

Resolution No. 35.

(Introduced by George H. Utter.)

Resolved, That as the present low ebb of the mining industry is largely due to decreased prospecting as a result of the harassing restrictions imposed upon prospectors in the Forest Reserve and recognizing the imperative necessity of restoring the protection against forest fires afforded by the presence of prospectors on the forest lands, we earnestly recommend legislation by Congress restoring to the prospector on forest reserve the privileges enjoyed on other parts of the public domain.

Resolution No. 36.

(Introduced by the California Delegation.)

Resolved, This Congress recognizes that the United States Government, in its dealings with the mineral lands, and the miners operating thereon, has uniformly treated the subject along broad and equitable lines, and that those who pursuant to the invitation of the Government have explored the mineral lands, discovered therein and in good faith developed the same, have almost uniformly been protected in their rights.

In this connection attention is called to certain recent rulings of the Land Department, that, while they may be proper as applied to the facts therein involved, are in other respects inconsistent with the previous rulings of the Department, and the decisions of the Court, under which recent rulings associations of persons who have entered upon oil and other mineral lands in good faith, explored and developed the same and discovered oil therein, have been denied patents, where prior to discovery and frequently for the purpose of raising money for development purposes certain of the locators had conveyed their interests so that there were at the time of discovery less than eight locators interested in such claim.

Previous to these recent rulings, it had been uniformly held by the Courts and by the Department, where the laws had been complied with, and mineral or oil discovered, that such locators or their successor or successors in interest, were entitled to patents.

These recent rulings, if adhered to, would destroy many investments made in good faith, impair mining titles, and destroy the confidence of investors in such titles. We therefore urge immediate legislative and departmental action to the end that all such property rights when claimed in good faith under bona fide locations shall be protected, and where in accordance with the customs of the miners, the previous rulings of the Department, and the decisions of the Courts, the titles to such claims are honestly vested, the patents shall be issued therefor without denial or delay.

In connection with the location and development of oil mining lands with relation to future locations, and in order to meet the conditions prevailing in the oil districts, an amendment to the Statute ought to be adopted to the effect that upon entry, the marking of the bound-

aries and the posting of the notice, the locator should have a reasonable time, within which to prepare for and commence drilling upon the location, and thereafter so long as drilling and operations were diligently continued, should be protected in their occupation and possession, and upon discovery of oil to make entry and acquire patent as in other cases.

And, Whereas, It is well known that the continued pumping of oil from any given tract of land has the effect to drain out the oil from adjacent land, and in almost all instances, the remaining lands of the Government supposed to contain oil are situated in the vicinity of railroad lands or other privately owned lands, which are or will be developed and worked; therefore, the policy of the Government should be not to withdraw such lands from mineral entry or otherwise discourage their exploration or development, but to keep such lands free and open to entry, disposition and development equally with other lands subject to disposition under the mineral law.

MEETING OF MEMBERS

THURSDAY, SEPTEMBER 29, 1910.

8 o'Clock P. M.

PRESIDENT BUCKLEY: The meeting will please be in order. The secretary will read the official call for this meeting.

The official call was then read by the secretary as follows:

Annual Meeting of Members.

A meeting of the members of the American Mining Congress is hereby called to meet at Los Angeles, California, on Thursday, September 29, 1910, at 8 o'clock p. m., for the purpose of electing three Directors to hold office for three years, each, to succeed E. R. Buckley, John Dern and George W. E. Dorsey, whose terms of office as Directors expire, and for the transaction of such other business as may be properly brought before said meeting.

Order of the Executive Committee.

E. R. BUCKLEY, President.

J. F. CALLBREATH, JR., Secretary.

Denver, Colorado, July 20, 1910.

PRESIDENT BUCKLEY: I wish to explain, for the benefit of those who may not be familiar with the constitution and by-laws, that the by-laws provide that there shall be selected a nominating committee consisting of five members; that the members of this nominating committee shall be elected, not appointed, by the members present. This nominating committee shall make recommendations to supply the vacancies in the board of directors. I wish also to announce at this time that during the interim between the last session and this there have been two vacancies on the board of directors, and these vacancies have been supplied by appointment as provided by the by-laws, the appointments made by the board of directors. One of these vacancies was caused by the resignation of Dr. H. Foster Bain, who moved from Illinois to California to take charge of the Mining and Scientific Press. The other vacancy was caused by the resignation of Mr. W. L. Clark of Arizona. Now, it will be the duty of this committee to make nominations to fill the places of Mr. Clark and Mr. Bain, and also three directors whose terms expire this year. Mr. Bain's place as director was supplied by the appointment of Mr. B. F. Bush, of Maryland, who is a very prominent coal operator. The position of director occupied by Mr. Clark was filled by the appointment of Mr. E. A. Montgomery, of Los Angeles. The first in order is the nomination of members of the nominating committee.

MR. DORSEY: Mr. President, I nominate Mr. D. W. Brunton, of Denver, as one.

A MEMBER: I nominate Col. H. H. Gregg, of Joplin, Mo.

J. W. MALCOMSON: I nominate Mr. H. Foster Bain, of San Francisco, as a member of the nominating committee.

MR. GEORGE E. WHITTAKER, of California: I nominate Mr. Fred H. Hall as a member of the nominating committee.

MR. G. W. HULL, of Arizona: I nominate Mr. L. W. Powell, of Arizona.

A MEMBER: I nominate Mr. Will Clark, of Jerome, Arizona.

PRESIDENT BUCKLEY: Any additional nominations for members of the nominating committee?

A MEMBER: I nominate Capt. C. Henry Thompson, of Los Angeles.

A MEMBER: I move that the nominations close, Mr. President. This motion was duly seconded.

PRESIDENT BUCKLEY: It is moved and seconded that the nominations be closed. All those in favor of the motion signify by saying aye.

Motion unanimously carried.

PRESIDENT BUCKLEY: The secretary will please read the names.

SECRETARY NORMAN: D. W. Brunton, H. H. Gregg, H. Foster Bain, Fred H. Hall, L. W. Powell, Will L. Clark, and C. Henry Thompson are the nominees.

PRESIDENT BUCKLEY: Gentlemen, what method do you wish to pursue in the selection of these members of the nominating committee? Do you wish to vote for the first member on the first ballot, or to vote for five members, giving the five highest the place on the committee? How do you wish to vote?

MR. FRANK G. TYRRELL: Mr. Chairman, is it the idea that this committee will make these nominations tonight?

PRESIDENT BUCKLEY: The nominations will be made at once.

MR. TYRRELL: I understand that Mr. Will L. Clark is not here. That relieves the situation by so much. There is no need of asking him to serve if he is not here this evening. He told me he would be away, and said he would be back tomorrow.

MR. HULL: Mr. Clark requested me to nominate Mr. Powell, and the delegates from Arizona make that request. That is the reason why I made the nomination.

MR. THOMPSON: Mr. Chairman, with the consent of the mover I would like to withdraw my name. That will just leave five for the committee.

A MEMBER: To expedite matters, I will consent to that.

PRESIDENT BUCKLEY: If there are no objections, we will consider Mr. Thompson's name withdrawn. That will leave five nominees.

MR. GEORGE E. WHITTAKER: I move that the secretary cast the ballot for the five names.

This motion was duly seconded and carried.

PRESIDENT BUCKLEY: The ballot has been cast. The nominating committee will please retire. We will proceed with the remainder of the business which we have before the meeting of members. The nominating committee may repair to the gentlemen's waiting room at the left of the hall, or elsewhere in the lobby or foyer. We will now listen to the report of the auditing committee.

The report of the auditing committee was then read by the secretary as follows:

AMERICAN MINING CONGRESS.

Financial Statement Covering Period September 1, 1909, to
August 31, 1910.

RECEIPTS.

Cash on hand September 1, 1909		\$ 1,390.18
Received from Life Membership fees	\$ 350.00	
Annual Membership fees	1,150.52	
Annual Membership dues	3,478.00	
Exchange	1.95	
Goldfield Convention fund	687.50	
Los Angeles Convention fund	3,000.00	
	\$8,667.97	8,667.97
		<u>\$10,058.15</u>

DISBURSEMENTS.

Administrative expenses of Denver office:		
Salaries	\$2,131.00	
Printing	1,494.15	
Postage	507.15	
Office supplies	210.20	
Rent	275.00	
Organizers' salary and expenses	592.20	
Miscellaneous expense	247.61	
	\$5,457.31	5,457.31
Library		56.90
Permanent office fixtures		69.10

Legislative.

Work at Washington, D. C.	1,500.00
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Convention Expense.

Goldfield Session	\$ 585.39	
Los Angeles Session,		
Salaries	267.50	
Postage	70.00	
	\$ 922.89	922.89

Miscellaneous.

Reimbursing Secretary for money advanced	700.00
Total Disbursements	\$ 8,706.20
Balance cash on hand September 1, 1910	\$ 1,351.95

I hereby certify that the above is a correct statement of the receipts and disbursements of the American Mining Congress for a period of one year from September 1, 1909 to August 31, 1910.

(Signed)

JAS. F. CALLBREATH, JR.

Secretary.

We, the undersigned members of the Auditing Committee of the American Mining Congress, having examined the books and accounts of the Secretary, covering transactions for the period beginning Sept. 1, 1909, and ending August 31, 1910, hereby certify that we find same correct and that the statement hereby attached is a correct statement of the financial transactions of the American Mining Congress during said period.

(Signed)

D. W. BRUNTON,
E. G. REINERT,
Members Auditing Committee.

PRESIDENT BUCKLEY: What is your pleasure with the report of the auditing committee?

MR. WHITTAKER: I move that the report be received and approved.

Said motion was duly seconded and carried.

PRESIDENT BUCKLEY: Is there any miscellaneous business to come before this meeting?

MR. DORSEY: At this time I would like to offer this resolution, which I will read:

Whereas, Certain promises and pledges, made by the delegation from the State of Colorado at the session of the Congress held at Portland, Oregon, in 1904, at the time the Congress was called to vote upon the location of permanent headquarters, have not been kept and fulfilled, and the assistance promised has not been given, and as the promises and pledges so made at that time induced the members of the Congress held at Portland to vote to locate headquarters in the City of Denver, and, further, much dissatisfaction has been expressed at the failure to keep the agreements made;

Therefore, Be it resolved, That the directors of this Congress be, and they are hereby, authorized to take up at once this matter with the people of Colorado, and in case satisfactory arrangements cannot be made, then the directors are authorized to take such steps as in their judgment seem advisable, to relocate the permanent headquarters of this Congress in some other state.

PRESIDENT BUCKLEY: Gentlemen, you have heard the resolution. What is your pleasure?

A MEMBER: I second the motion.

PRESIDENT BUCKLEY: The motion has been made and seconded that the resolution offered by Mr. Dorsey be passed by this meeting. Any remarks?

MR. DERN, of Utah: Mr. President and Members of the Congress: I feel that I would be derelict in my duty as a member of this association and as its vice-president if I did not at this time raise my voice as to the unjustness and unfairness with which this Congress has been treated by the people of Colorado. In 1904 the directors, after due consideration, decided that the time had arrived, after years of wandering around, to establish a permanent home for the Congress. There were several competitors in the field, and a delegation from Utah appeared and asked for the permanent home. We took the matter up with our City Council. We believed that Salt Lake was centrally located in the mining country, and would be the ideal place for the permanent headquarters for the American Mining Congress. Our local representatives appeared before the Mayor and Council and presented the matter for their consideration, and asked them, inas-

much as the city held considerable property in its own title in fee, to grant a site for the permanent home of the Congress. After going into the matter very thoroughly, they passed an ordinance transferring a site right across from the City Hall, which today is worth \$50,000, to the American Mining Congress. I, as chairman of the delegation at the time, had, you might say, the deed in my pocket to offer to the convention.

In addition to that we had a number of mining men who stood ready, not to put down a hundred dollars, or two hundred dollars, but five or ten thousand dollars, and I am satisfied that had the Congress been voted to Salt Lake City at that time we should have been able, inside of thirty days, to raise the necessary money to put up a permanent home for this Congress. Denver, as a competitor, stepped in, and by the eloquence of their speakers, and their powers of persuasion over the other delegates, beat us out by a narrow margin, holding out what seemed to be very fair and just and liberal gifts from the mining magnates of the great State of Colorado. Now, what have they done? Look at your report today. Not even hall rent or office rent do they pay, but we have to dig in our own pockets year after year to even pay for the office rent of the American Mining Congress in this grand State of Colorado. I say, I have been provoked over the situation for years, but have been assured from time to time that work was being done, and that the time had arrived when the people would take up this matter. Remember that this was promised in 1904, six years ago, and nothing has been done yet. I believe the time has arrived now when authority should be given to the directors to lay this matter honestly before the people of Colorado and the Chamber of Commerce of the City of Denver, or whoever the proper authority may be, through the secretary and the other representatives of the Congress, and to urge them to come up to their promises. If they are not inclined to do anything, then the directors should have the right to take up this matter with some other city which is willing to contribute and do the right thing by the Congress. For this reason I heartily second the motion to adopt the resolution offered by Col. Dorsey.

MR. WHITTAKER: As I understand the resolution, it is proposed by a vote of this convention to at once, practically at once, remove the offices from Denver to some other place.

PRESIDENT BUCKLEY: Mr. Whittaker, the resolution provides that the directors shall go to Denver and ascertain from Denver if she is willing, or expects to fulfill her obligations. If she is not willing, then the directors shall have the authority to find some other place, satisfactory to the Congress.

MR. DORSEY: It was my thought that before any action was taken we would refer the entire matter to the membership, and have a vote of the membership, either at our next annual meeting or by letter ballot; and I will say further, in addition to what Mr. Dern has said, that if you will talk to any Colorado man he will endorse every word said by Mr. Dern. The Colorado men who are earnest in this work and are active members of this Congress, feel this more keenly than either Mr. Dern or myself, who went down ingloriously to defeat at Portland. The gentlemen said we wanted it at Salt Lake—I don't think now that we do. They may want it at Los Angeles. Spokane wants it. Douglas wants it. I am ready to go anywhere where people will keep their pledges.

PRESIDENT BUCKLEY: Those in favor of this resolution will signify by saying aye.

The motion was duly carried.

PRESIDENT BUCKLEY: Is there any further business to come before the meeting of members? If there is no further business to

come before this meeting, I think we will at this time have the pleasure of listening to our friend, Mr. Frank Tyrrell, of Los Angeles, who has very kindly consented to address the members on a subject of very great importance to them—the problem of increasing our membership. (Applause.)

MR. FRANK G. TYRRELL, of California: I looked very carefully, Mr. Chairman, and Ladies and Gentlemen, over the program, and was expecting to hear, as a part of the evening's entertainment a reading from Capt. Crawford, the "Poet Scout." I was not in when the telegram expressing his regret at his inability to be present was received and read, and I have been trying to find out—in fact, the reporters, some of them, have been assisting me to find out—just what was expected of me in the remarks I might make at this time and place. I have had a brief conversation with our secretary, Mr. J. F. Callbreath, who is sitting in the shadow here to protect his eyes, and have learned some things from him that were very illuminating and rather surprising too, in regard to the work of the American Mining Congress. Those of you who have been with the movement from its inception, those of you, if any there be in this gathering tonight, who were among its organizers, or at any rate among its first members, are fully informed concerning its history. I am one of those who have recently enrolled their names as members of the American Mining Congress, and our knowledge of its efforts and successes reaches back for only one or two or three years. Now, it is proverbially difficult, an exceedingly difficult task, to organize a large industry such as the mining industry is, in so many diversified fields, with such a variety of personal interests, to organize that industry, and to project some scheme or plan of action, unless there is the hearty and unanimous support of everyone who enrolls himself as a member.

You remember the bishop who tried to analyze or classify the various members of his church, and he finally hit upon this: He said, "We have three classes—the workers, the shirkers, and the jerkers," and the names indicated their various characteristics. I remember an incident which is said to have occurred in the career of Henry Ward Beecher. It seems that upon one occasion, before the days of the automobile, he had to hire a livery rig, and he went down and the livery man turned out a very fine looking animal and light buggy. Mr. Beecher was admiring the fine horse, and the livery man started to describe it to him. He said, "Here is a mighty fine horse, Mr. Beecher, that is as sound as a dollar,—not a blemish. He will work anywhere, single or double, two-wheel or four-in-hand. He will pull all that the harness will hold. He never was known to balk or throw off, and in fact he will go anywhere you want him to go and do anything you ask of him." Mr. Beecher shoved his hands down in his trousers pockets and said, "I wish to heaven he was a member of my church." Those certainly would have been most excellent characteristics, those various elements, in any man who is a member of an ecclesiastical, political, social, fraternal, industrial, or any other kind of an organization. Now, I don't know, if we were to be counted here in Los Angeles, and we had agreed to so much contribution, personal contribution, of time and energy, for the success of this meeting, I don't believe there would be more than—well, I will ask Brother Thomas O'Donnell down there to tell me whether we couldn't count the real, active, persistent, partient, aggressive workers on the fingers of one hand any way, right here in Los Angeles. And yet we knew you were coming, we anticipated much pleasure in endeavoring to entertain you, the obligation was upon us, financial and otherwise. Why didn't we lay ourselves out? "If I only had—if I only had," was the piteous wail of an engineer who failed to observe the signals and brought about a head-on collision, wrecking his train and launching scores of souls into an abysmal eternity, because he did not regard the signals. If I only had! There is that regret invariably.

Now, Ladies and Gentlemen, this came to my mind. The salary of one of the most tireless, persistent, successful workers perhaps that the secretarial office of any society ever had, the salary of our secretary, is in arrears since November, 1908, about twenty-two months. He has been financing this enterprise, and he has been doing it without any vacations, until he has worn himself to that condition which is described in New York State by the doughty Colonel as the condition to which he was going to "lick" his enemies—"to a frazzle"—pretty near to a frazzle. There is something almost of pathos in the fact that by tireless work, without ceasing, without rest, without recreation, this man has given himself to this work; and I presume the output of energy which he has freely and willingly and gladly given to this enterprise and your collective interests would have resulted in making him anywhere from \$50,000 to \$250,000 if he had applied it in some lucrative business enterprise. Now, that mere fact speaks for itself. There are some mere statements of fact that are sufficient argument. Not only that, but he has kept us free from any and every other kind of obligation. The American Mining Congress owes nobody else anything. Now, it seems to me that if we had paid him a lucrative salary, \$500 a month or \$10,000 a year, that even that amount of money would not have been anything like an adequate return for the service of brain and heart and hand which he has so royally given to the Congress. (Great Applause.) It seems to me there are some things that money cannot buy, and for which there is no adequate measure in money. They say that money is a medium of exchange and the measure of value. It may be a medium of exchange, but when it comes to personal service of the character that Brother Callbreath has given us—it may be a medium of exchange, but no reasonable amount of money could be a fair measure of value. Personal service is one of the most difficult things to measure in terms of dollars and cents.

Now, what has been done is simply an earnest of what may yet be done. The American Mining Congress has certainly contributed immensely to the determination of the lead and zinc schedules in the tariff bill, for example, as it exists today. Doubtless every western Congressman thinks he did all that himself, and he claims a large measure of the credit for it, if not the entire credit for the achievement. The American Mining Congress has persistently presented the claims of this great industry, the output of which represents about sixty-five per cent of the total railway freight tonnage of the nation. The American Mining Congress, as I say, has persistently presented the claims of this great under-girding, over-topping industry until finally, with apparent reluctance in some quarters, our national legislature has established a Bureau of Mines; and by the same patient and persistent efforts, the President has finally nominated for the head of that Bureau Dr. Holmes, who had the unanimous, hearty, enthusiastic support of the entire mining fraternity back of him. Now, that is something worth talking about, and that is simply an earnest of what may yet be done. This has already been achieved, and with the tremendous accumulative energy of an organization like the American Mining Congress back of it, we shall shortly have—let us indulge in the spirit of prophecy—we might as well—not simply a Bureau of Mines, but a Department of Mines, with a cabinet officer. (Great Applause.) Why shouldn't we have a Department of Mines? We have a Department of Commerce and Labor, we have a Department of Agriculture, we have department portfolios that are not one-half so significant or important as the mining industry portfolio will be, when the right man takes it under his arm and takes his seat in the national councils with the chief executive of this country and his fellow-members of the cabinet, to hear and discuss ways and means, methods and schemes, of organizations and procedure and administration as affecting that industry which in a sense is fundamental and primary and elemental, in that it furnishes not simply this immense freight tonnage, but that it stacks in our bank vaults, in our trust companies, in the national ex-

chequer at Washington, the ultimate money of redemption. Why, there is not a man or woman here that wears a watch or finger ring, any item of jewelry, whether useful of merely ornamental, that is not indebted to the miner, to the prospector. There is not an article of usefulness in our every day affairs, such as a nail or pin, but what will carry us back, if we will give our fancy wings, to the miner to whom we are indebted. This is an age of steel and steam and electricity, and in our use of these great and mighty forces of electricity and steam, where would we be without the steel and iron and copper, too? We would simply be utterly incapable of clothing these wonderful forces. The arm of power would be weakened, paralyzed, and drop nerveless and helpless, and the wheels of industry would stop.

Now, this American Mining Congress is a strong, stalwart organization, with a history, with ripened achievements to its credit, but, ladies and gentlemen, believe me, with a mighty and imminent crisis confronting it. Not that its organization is imperiled—not for a moment. But the whole mining west fronts a situation which finds almost a parallel in history in the era immediately following the Civil war.

You know there were men through the East and the North at the close of the war who looked toward the scattering ingots which Marshall had dug out of the earth at Feather river up here in Sutter county, who looked toward the plethoric wealth locked in the rock-ribbed and iron chested hills and mountains of the West, and looked upon that treasure and the streams that began to gush forth and tried to devise a scheme of law and administration and distribution which would load the national debt that had been accumulated as the heritage of that horrid war upon the productive mineral industries of the West. That was their scheme; that was their serious, settled purpose. Why, they said, that is a treasure which belongs to the public, to all the people. Here is a treasure amply abundant to pay off this tremendous, crushing debt. And they were only defeated in it by the little handful of Western senators and congressmen, led by Senator William Stewart of Nevada—peace be to his memory!—who, if he had never accomplished anything else, has, by that one act, written his name high upon the tablets of fame; and if the West ever has the time and the opportunity to place a statue in the Hall of Fame in Washington, it should be erected to Senator Stewart, because of that one act. (Great Applause.)

You go back now and read that law which he finally succeeded in having enacted. You won't find it in any index, because you will be misled by the title. In order that they might get equity and justice at the hands of the national administration, they had to smuggle that law in under the title of some scheme to build an irrigation ditch, and it is indexed, not under mining law, but under ditch law. He "ditched" that splendid scheme of spoilation with which those Easterners had threatened the West, when they tried to lay felonious hands upon the treasure that God Almighty had placed in our hills and mountains. It is not too severe to say "felonious hands." He said, "Hands off." He leveled the batteries of his indignation sagaciously and with wisdom, the wisdom of success, the legacy of success, upon them, and said, like the Quaker, who did not believe in the use of firearms, but nevertheless when he got the drop on the burglar in his bedroom, he said, as he pointed the old fowling piece at him, "Thee had better get out of the way, for I intend to fire this gun right where thee stands."

And precisely that now is what we have got to face in this nation this day. In the La Follette Magazine was an article one or two weeks ago by Prof. John R. Commons, in which he refers to the agitation or debate at the National Conservation Congress at St. Paul, and quotes the doughty Theodore Roosevelt as having said that these men who come here clamoring for state rights are merely hiding behind that as a mask to enable them the more effectively to serve the power companies and the malign promoters of the hydro-electro trusts. In other words, "If you don't agree with me you are a highwayman, a raider, a

wrecker of the national resources." And I presume that your father or grandfather was hanged for some felony "if you don't agree with me." "If you do agree with me you are a gentleman and a scholar."

Now, I want to know if there is any argument in that. I want to know if by any authority of names you can silence the vehement indignation of a man or of a section of this country upon which, under the plea of a moral and civic uplift, you are trying to saddle an infamous injustice. Not for a moment. They may succeed, as Mr. Pinchot menacingly said here in his very gracious and urbane address the other evening—they may succeed in enacting a scheme of administering the public domain by competitive leasing, by the re-establishment of a system of land tenure like that of medieval feudalism, against which our forebears indignantly protested, and for which they fought until their swords were sheathed only in victory. You may do that because you outnumber us and can outvote us; but you will find the entire West aflame with indignation and protest, and restive and rebellious under it, until you take back the infamous injustice and give us at least equity and a square deal. (Great applause.)

Now, ladies and gentlemen, I speak earnestly because I feel deeply. I want to know, in the name of common sense, if it is satisfactory to you men of balanced judgment, of cool, calculating reasoning faculties, does it satisfy you when Mr. Pinchot and Mr. Roosevelt say, "We mean equalization, not stagnation. We don't intend anything by this that shall discourage or handicap the prospector. Conservation, as we intend to enact and administer it, will not hinder the prospector." Mere assertion proves nothing. "The proof of the pudding is in the chewing of the rag." Stop and think a moment. We send the prospector abroad through the land, and he goes with his little burro pack and his pick and shovel and his microscope, his meager equipment; he goes in the blazing sun, across the hot sands, he imperils his life, knowing that this government of ours will deal justly with him; and if, for himself or for his employers he finally lays a trembling hand upon the hid treasure of mother earth, that treasure is his, by right of heroic, hazardous exploration and discovery, and the nation will defend it in his possession as a legitimate fruit and reward for all the hazard that he has undergone. Now then, is he going to go through the blazing hell of our barren deserts, risking his life, far away from his wife and bairn and fireside and all the ease and comfort of our modern civilization—is he going to go through that awful peril and follow that winding trail through the wilderness, and camp by the salty springs, thirsting, his lips parched, his throat swollen, his tongue protruding, with the whirling wings of the vulture that is watching him there, ready to pluck out his eyes before the last quivering pulsation has signalled the advent of death—is he going to risk a hell like that in order that some munificent bureaucrat three thousand miles away at Washington may grudgingly dole out to him a temporary term or short time lease? Not if he knows himself. Is Capital going to pour out its plethoric stores to develop at such risk these hidden resources? Why, it is incomprehensible. It is past belief. Do not misunderstand us. The American Mining Congress will not allow any man, no matter what may be his inheritance, his tradition, his predilections, his mental or moral bias, will not allow any man to go beyond it in decrying monopoly, or the cruel abuse and godless waste of the national resources. Nobody will allow it—nobody will allow it for a moment. They are holding up holy hands in horror at the prospectors and Western miners. Governor Stubbs of Kansas, I understand, on the platform represented these men of the West as "robbers." I want you, if you see Governor Stubbs, if he made any such statement, to go to him and tell him with my compliments that that is an infamous lie, and give him my name and address, and tell him that I would like to meet him at any time, Marquis of Queensbury rules, a la Johnson and Jeffries, or on the platform, or in any other way, and ram that word down his throat, or the throat of any other man who so attempts to stigmatize the men of the West.

My grandfather was a forty-niner and in my babyhood and boyhood I was cradled within the music of the roar of the great waves of the Pacific ocean. That grizzled old forty-niner crossed to the head of the Sacramento valley away yonder before the whistle of the locomotive had wakened the echoes of primeval silence, and followed the narrow road until it dwindled into a squirrel track and ran up a tree—then they sold their wagons and took their goods on the backs of animals, and went singly like the indians through a trail which they themselves blazed to get to the land of promise. Now, would they have done that under the competitive lease system? Perish the thought. They felt the lure of California, they saw the signs of promise and they came daring the perils of the desert, the lurking, prowling beasts of the wilderness, and the still greater horror of starvation in the snowbound mountains. They shared the last crumb of bread and the last drop of water from the emptying canteen. They died along the way. And they went to work there upon government lands, upon the public domain, which in that day and time had not yet been withdrawn from entry. (Laughter.) They dug their ditches and built their flumes, and washed out the yellow gold. They did all that, and the government woke up and found them there as trespassers upon the public lands. Did it send some doughty leather-booted forest ranger to bid them off as poachers upon Uncle Sam's territories? No sir, "nary a bit of it." The courts of this nation recognized them as having there gained the rights of discovery, and the courts developed and safeguarded those rights.

And now the nation is going to undo all that. Now, gentlemen, if the American Mining Congress has anything to do, it came to the kingdom for such a time as this, and the appeal is as from a clarion trumpet to rally all your forces, stand together, shoulder to shoulder, and not be content with simply the evanescent platform of a convention hall on this question. Hysterical oratory doesn't cut any figure when it comes to a session of the national legislature there at Washington. I have in my pocket now three or four different conservation bills that are proposed. **Consternation** bills, some call them. **Constipation** bills, Tom O'Donnell calls them. Annihilation and paralysis bills is what they are. If they are not safeguarded, where will our rights be? We do not for a moment believe that the majority of the people of these Western states are the truckling white serfs of monopolists, of grafters, of highbinders. We do not for a moment believe that the dauntless spirit of the Western pioneers no longer breathes and animates mortal clay. We believe that here and now are men of precisely the same type as those who under Fremont, the Pathfinder, wrested this golden domain from Spain, from Mexico, that the same spirit animates their sons and daughters, and we all, like the poor Seminole, if you please, would hurl a deathless defiance to all the overhanded, unjust, tyrannical, inequitable methods of dealing with the public domain which has grown populous since they came here to build their fires and rear their altars and establish human homes, believing that they had some rights acquired thereby. Did Columbus, when he discovered America, claim by right of discovery as a sort of legal fiction?

You talk about this use for the entire public. That sounds good but it is mere buncombe. The American Mining Congress has just reached the threshold of its real career of value and importance to the Western states. What are you going to do about it? Are you going to stand together and finance this enterprise, or are you going to lay the entire burden upon the heart and brain and shoulders of one or two lone men, who have the sacrificial heroism and the self-denial to carry it, even though it crush them? I do not for a moment doubt that you great, big-bodied, big-brained, big-hearted mining men will do your part in carrying the burden. Are fifty or a hundred of you fellows going to get together and assess one another \$200 apiece and then say, "We will hold this thing for a while, and then we will hold in abeyance the \$15 membership fee, and the \$10 dues, and we will gather in twenty members at \$10 and re-pay ourselves in that way"? No, that

is not what you Westerners and miners of the West are going to say. You are going to raise \$200 or \$2,000 or \$20,000, whatever is needed to meet the exigency which is upon us. The way is clear, and the thing to do is to respond to it right gladly. This thing has gone on quite long enough. It is up to us now,—dig. We will go out and gather in the membership, because we want a membership and we want united effort. I do not believe, ladies and gentlemen, that there will be any real difference of opinion between men of the West and men of the East when we go there and look each other in the eye, face to face. We will see and understand, and we will find them fair people, with characteristic American citizenship, we will find them disposed to treat with us fairly, to deal with us squarely, uprightly, upon the principles of sincere, fair, square American manhood, taking nothing that we are not ready and willing to give, and giving nothing that we cannot give generously and unstintingly, out of a plethoric store. I beseech you then, in the name of this Congress and the industry for which it stands, consecrate yourselves anew to the terrific task that is upon you. Let us not misunderstand the situation, let us get together and reason about this matter, and, in God's name, let us deal fairly with the pioneer, with the explorer, with the discoverer, with the man in the ranks who is working and warring his way in the battle. You gentlemen, some of you, who have inherited wealth, may never realize what it means to lift the ax or the hammer or any implement of honest industry; remember that this man is your brother. How easy it is for a man who has inherited an independent fortune, to adopt some fad, and then go up and down the land parading that, and saying to the men of the nation, "This is what we want of you—to re-establish under the guise of moral and civic reform, here in America, in this dawn of the twentieth century, the ancient, medieval, exploded system of a long-forgotten feudalism."

Will you meet this crisis? Will you, gentlemen? You will "as sure as God made little apples," guided by the lamp of an enlightened statesmanship. (Great applause.)

PRESIDENT BUCKLEY: Are the Nominating Committee prepared to report?

MR. BRUNTON: Your Committee is ready to report.

The report of the Nominating Committee was then read as follows:

Los Angeles, Calif., Sept. 29, 1910.

The undersigned, constituting the Nominating Committee, beg leave to present the following names for Directors of the American Mining Congress, for the length of terms set opposite the name of each:

For three-year term, Mr. E. A. Montgomery of Los Angeles, Calif.

For three-year term, Mr. Chas. A. Barlow of Bakersfield, Calif.

For three-year term, Col. Louis W. Powell of Warren, Arizona.

To fill vacancy for one year, Mr. John Dern of Salt Lake City, Utah.

To fill vacancy for two years, Dr. E. R. Buckley of Rolla, Missouri.

(Signed) D. W. BRUNTON,
H. H. GREGG,
H. FOSTER BAIN,
FRED H. HALL,
L. W. POWELL,
Committee.

PRESIDENT BUCKLEY: Gentlemen, you have heard the report of the Nominating Committee. What is your pleasure?

MR. WHITTAKER: I move that the report of the Nominating Committee be adopted and approved, and that the five persons be

declared elected by acclamation, without further balloting, and that the Secretary cast the ballot.

PRESIDENT BUCKLEY: The motion is made and seconded that the Secretary be instructed to cast the unanimous vote of the members for the nominees recommended by the Nominating Committee.

MR. DERN, (Utah): Mr. Chairman, I have served as a member of the Board, I think, from the very beginning. I have served my apprenticeship, and I have been a journeyman for a good while. I notice from the Committee's report that the members from the East have not been re-chosen. It is the understanding of the Mining Congress that our influence shall be broad, that it shall have a representation from the East as well as from the West, and I would very gladly retire in favor of somebody from the far East. I think at the present time we have a member who was appointed and who would have to be re-elected at this time, Mr. Bush, of Maryland. He has been a power in the national legislature, and of great assistance to Mr. Callbreath in bringing about those results which have been so gratifying to us all, and in assisting Mr. Callbreath and the balance of us to get the establishment of a bureau of mines. I really think it would be better to get Mr. Bush on the Board than myself, and I respectfully withdraw my name as a candidate for re-election, in favor of Mr. Bush.

PRESIDENT BUCKLEY: There is a motion before the house. Are there any further remarks?

MR. GREGG of Missouri: In choosing a representative upon the Board for Utah, the long and valuable service of Mr. Dern was considered, and it was the sentiment of your Nominating Committee that Mr. Dern should be prevailed upon to remain on the Board, as Utah's member.

MR. DERN: Allow me to say, I am not from Utah. I have resided in Nebraska for the last twenty-three years, and expect to reside there as long as I live. My headquarters are temporarily at Salt Lake; two years ago they were at Goldfield; four years ago they were in Boise. I told the Committee that I did not desire to serve any longer. I have served my apprenticeship, commencing when this Congress was organized, and I have been with it ever since, and I am sure I am only too glad to retire in favor of some other party.

MR. GREGG: The Committee would certainly be glad to have you serve. Other gentlemen were named as having been very active in it, notably Mr. Montgomery of this city. There was a desire that the oil interests should be represented—hence the choice of Mr. Barlow. I think the membership of this Congress would act unwisely if they accepted the resignation of Mr. Dern. There are good reasons why Mr. Dern should continue on this Board. I do not know of any person whose resignation or retirement from this Congress would cost the Congress more than would the retirement of Mr. Dern. I hope the membership will not accept his resignation.

PRESIDENT BUCKLEY: The question is on the adoption of the report of the Committee, the motion being made and seconded that the Secretary cast the ballot for the men named by the Committee.

MR. MONTGOMERY: I feel that I would be very selfish indeed to stand in the way of an Eastern representative being elected on this Board. My interests are entirely in behalf of the American Mining Congress, which I know in their efforts can bring about the improved conditions which we much need. I am sure I would much prefer being the one to retire in favor of the Eastern representative, Mr. Bush, who I believe has proven the value of his services as one acting by appointment on the Board. Mr. Dern I believe has been one of the very credit-

able members of the Congress and without his support I think the Congress would be very much weakened, and I would not be willing to be in any way in a position to stand in the way of securing the recognition of an Eastern representative on the Board, and especially Mr. Dern, who has done so much for the Congress. I will ask that my name be withdrawn in favor of Mr. Bush.

MR. WHITTAKER: I want to say that if there is any one man that we are desirous more than another to have on this Board it is our friend Mr. "Bob" Montgomery. (Applause.)

PRESIDENT BUCKLEY: Are you ready for the question?

The motion was duly put and carried.

PRESIDENT BUCKLEY: The ayes have it and the report of the Committee will be adopted. The Secretary will cast the ballot. The ballot has been cast for the Directors nominated by the Nominating Committee. Is there any further business to come before this meeting of the members? If not a motion to adjourn sine die is in order.

MR. WHITTAKER: I move that we adjourn sine die.

Said motion was duly seconded, and carried.

PRESIDENT BUCKLEY: The motion is carried that this meeting of members adjourn sine die. That is, the meeting of the members, not the meeting of the Congress, which will convene again tomorrow morning at 10 o'clock.

Annual Address of the President.

BY DR. E. R. BUCKLEY, ROLLA, MO.

It is extremely gratifying at this time to be able to report a most successful year in the history of this organization. Our financial condition has improved and our membership has increased. The legislative campaign has been a success and the committees have been especially active in conducting the investigations committed to their charge. We rejoice, today, in the consciousness of having accomplished something definite for the mining industry, and in the hope of doing greater things in the future. The American Mining Congress has been accorded scant recognition in some sections of the country during the years passed, partly on account of its aggressive policies, partly on account of manifest indifference, and partly on account of the men who represented these policies. Today the attitude of indifference is passing, and we include among our members many of the foremost mine operators and mining engineers of the country, all of whom are sharing in the work which this organization is carrying on.

On the first of May, 1910, the total membership was 1,059. This organization should have a membership of 10,000, and one of the most important activities for the coming year should be a campaign for members, carried on continuously and persistently.

The work of this Congress is not represented by its publication, as is the American Institute of Mining Engineers, although there is much that is valuable in the annual proceedings and in the monthly bulletins. Its primary object is not the publication of the results of scientific investigations. It is an association of men interested in mining, maintained for the purpose of encouraging mining in all its various phases and to promote a spirit of co-operation between the mining industry and agriculture, manufacturing and transportation, to the end that the development of these in-

dustries may be mutually helpful and that each may receive from the other and from the Federal and State governments its just proportion of encouragement through co-operation. Its work is more nearly allied to that of the Chambers of Commerce and Mines in our large cities, than it is to the scientific associations of the country. The fact that the members have not received pretentious volumes dealing with the mining industry may have led some to believe that they were not receiving adequate returns for the money invested in membership fees and annual dues. On the other hand, those who have been most intimately associated with the growth of the organization have felt that its objects were not only worthy of their money, but also of their time and talents. We believe that most mining men in this country, could they once be made to understand the unselfish spirit prompting the men who are carrying on the work of this organization, would contribute, not only their money, but what is vastly more important, their influence, to aid in the accomplishment of those things for which this body is organized.

Finances.

This Congress has no systematic means of securing funds, except through the fees and annual dues of members. These alone will about sustain the permanent headquarters, paying the salary of the Secretary and his clerical force. The fund obtained in this way has never been adequate to carry on legislative campaigns and pay the expenses contingent upon the annual meeting. The campaign for the Bureau of Mines, last winter, required the maintenance of an office in Washington for six months, and the almost exclusive time of the Secretary and a clerk. This campaign was made possible largely through the efforts of the Sierra Madre Club of Los Angeles, which secured voluntary contributions from mining men of the Southwest sufficient to meet these expenses. During the coming year I do not apprehend that there will be any necessity of maintaining headquarters in Washington. It ought to be possible for the organization to carry on such legislative work as may be necessary from

the permanent headquarters. This will afford the Secretary an opportunity to devote his time and attention chiefly to the work of strengthening the membership and securing voluntary contributions to provide for any liabilities which may be incurred in excess of the receipts from annual dues and membership fees.

Permanent Endowment.

Many of the great fortunes of this country have been accumulated chiefly as the result of the development of the mineral resources of this country. Yet of all the organizations of this country, those representing mining are the most scantily endowed. The American Mining Congress should have a permanent, invested fund of \$500,000, the income from which might be used for carrying on its legitimate work. I know of no greater service one could render the mining industry than the creation of such an endowment. Where could one, who has made his millions out of the mines of this country, find a more fitting monument? Are there not five men in this Southwestern country alone, who together could provide this endowment?

Branch Organizations.

Several years ago the Mining Congress provided for the establishment of branches in the mining centers of the country. Several branches have already been organized and others are in prospect. There appears to be no reason why many of the local mining organizations should not affiliate with the Mining Congress, thereby serving the industry at large and securing for themselves the close and intimate co-operation of the national organization. Undoubtedly there are many questions of a local character which cannot be dealt with through the national organization, but that organization might render important service to the local branches in solving these very problems. The organization of local branches cannot be easily effected without having a representative of the national organization on the

ground. For this reason it is thought that in conjunction with the work for members during the coming year the Secretary might devote a portion of his time profitably to the organization of branches.

Permanent Headquarters.

At the Portland convention, after a most strenuous contest, permanent headquarters were established in Denver. This action was taken with the understanding that the State of Colorado and the City of Denver should provide amply for the housing and care of such headquarters as might be required to carry on the work of the organization. The permanent headquarters of this association are a credit to any city, to any state, and I believe that any city or state that has been neglectful of its obligation should be reminded of the fact that there are other states and other cities which will not only be willing but glad to assume any measure of responsibility necessary to maintain this organization. The people in whose midst the permanent headquarters are now located should be called upon to give renewed assurances that the obligations which they imposed upon themselves at the Portland convention will be adequately and fully met in the future.

The Federal Bureau of Mines.

After thirteen years of agitation for recognition by the Federal government, ten years of which was spent in a hopeless struggle for a Department of Mines with its head a member of the President's cabinet, there has been created a Bureau of Mines, for the maintenance of which \$502,200 has been appropriated. I can only believe that it was through some misunderstanding on the part of our representatives in Congress that the appropriation for the investigation of the structural materials was made to the Bureau of Standards rather than to the Bureau of Mines. These investigations clearly belong to the Bureau of Mines and there should be little difficulty in having Congress direct any subsequent appropriations into the proper channels. The Bureau of

Mines has been created on broad principles which will permit of carrying on any technological investigations which may be construed as being pertinent to the mining industry. In importance it stands equal to the long-established Geological Survey, which has rendered much important service to the mining industry in the field of exploration. The appropriations made by Congress for the inauguration of the work of the Bureau of Mines have been dedicated chiefly to such investigations as have been demanded by the coal mining interests. Mining men, as well as the public, are unanimous in their approval of these specific appropriations which have been made chiefly in the interest of humanity. This meeting should express its grateful appreciation to the Senators and Representatives who were specially active in securing the passage of the Bureau of Mines bill. We should also convey to the President, William H. Taft, our thanks for the recognition accorded this body in the appointment of the first Director of that Bureau.

We are still far removed from a Department of Mines with Cabinet representation, although, in the natural course of events, its necessity must some day be conceded by those in whose hands is placed the power of its creation. Let us lay this ambition aside for the present and give our undivided attention to securing for the Bureau of Mines that financial support to which it is entitled. This Bureau must grow, as all other institutions have grown, but it is our duty to see that it is properly nourished, and herein, for the present, we can perform a most useful service.

The mining industry is now represented by two Federal bureaus of equal importance; one of which is concerned with those activities which are exploratory in nature and the other of which is concerned with such activities as may be termed operative, or technological. Because this association has been active in the creation of the Bureau of Mines is no reason that it should forget its obligations to or withhold its support from the Geological Survey. Neither should we in any way permit the personnel of the Bureaus to influence our activities in behalf of either. It is not easy to believe

that in opposing the appointment of the Director of the Bureau of Mines, that the Director of the Geological Survey was actuated by any selfish motive. I confidently believe that he was only fearful lest there might not be that close co-operation between the two Bureaus which appears to be so essential to the success of both. This body may be of great service to the mining industry in demanding a spirit of friendly co-operation, which is necessary to the highest accomplishment of both. There must be no spirit of rivalry, and should any feeling of jealousy arise between the men in charge of these Bureaus, we must forget the men and remember only the institutions which they represent.

From diligent inquiry, I find that there are many fundamental problems connected with the treatment of ores in the Western mining camps awaiting such investigations as appear pertinent to the Bureau of Mines. In my own state, for example, I am confident that of all the zinc in the ground mined over, not to exceed thirty per cent has ever reached the consumer in the shape of the finished products. Such a condition should be a matter of concern to every-one, and there should be no one so short-sighted as to oppose any investigation, federal, state or private, which has for its purpose an increase in the percentage of recovery of this or any other metal.

I commend to you for your consideration the desirability of urging upon Congress the making of appropriations to the Bureau of Mines for carrying on investigations in the various metal mining districts, where losses of this nature are evident.

Experimental Stations.

I have yet to hear any well-founded argument against the establishment of experimental stations by the Federal government to assist in solving the more difficult problems of ore concentration. Neither do I know of any good reason why the Federal government should not appropriate money to assist in the maintenance of those experimental plants already established in connection with the various state Schools of Mines. This body has at different sessions con-

sidered this question and it is again presented to you for your consideration.

Revision of the Mineral Land Laws.

In connection with a revision of our mineral land laws there appears to be much difference of opinion as to what is most desirable. It is evident that there is at present too much litigation in perfecting and retaining titles to mineral lands and this appears to be attributable to the nature of our Federal and State laws. There also appears to be dissatisfaction in the classification of the lands of the public domain, especially as pertains to the ruling of the Forestry Service. Further, it is well known to those who are acquainted with conditions in some of the larger mining camps, that much promising land is tied up through ownership by extinct corporations, through ownership under more or less questionable tax titles, through ownership by a widely scattered number of co-tenants, and in estates which have not been administered upon. In the case of Leadville, Colorado, for example, a camp of about forty square miles, it is believed that the ores are widely distributed from the overlying white porphyry to the granite beneath. There are perhaps 5,000 mining claims in this camp, and yet a very small portion of these are being developed or even explored. They are owned in every supposable variety of manner, and in a great many cases it would probably be impossible to find all of the owners and when found it would not be uncommon to find that they would be unwilling to co-operate with each other in any plan to mine or prospect the property. In a great many cases the owners pursue their legal rights to await development of the property until adjacent properties may have disclosed something of value, believing it to be to their ultimate interest to do so. The result of this condition is that more than one-half of the desirable mining property in this district is in a sort of dead-lock condition, such that no one can develop the same. It is not my purpose to offer any solution of this problem, but would respectfully call your attention to the report of the committee on the Revision

of our Mineral Land Laws, in which they recommend that this body urge upon Congress a general revision of the mineral land laws. It is apparent to the committee that it will be practically impossible to correct one fault without straightening out the entire code. It is evident that this organization should seriously consider the recommendation of a general revision, abandoning the idea of a patchwork.

Free Assaying.

There is also the question of establishing assay laboratories under the Bureau of Mines for the making of free assays in the case of undeveloped properties. This as well as the proposition for the establishment of experimental stations has been objected to by mining engineers and professional assayers on the ground that it would be an infringement upon the work of a well established profession. However this may be, it must be conceded that some remedy is needed for a condition whereby thousands of dollars are squandered annually, as a result of the encouragement given prospectors by private laboratories reporting fictitious values in samples submitted for assay. I believe that this body should urge one of two things to protect the prospector from the deception of unreliable assayers; either the establishment of free assay laboratories by the Federal government or the licensing of assay laboratories and their maintenance under a system of State inspection.

The Pseudo-Professional Expert.

The mining industry has suffered for years from the pseudo-professional man who lends himself to the support of fake mining propositions, furnishing the most alluring reports at so much per thousand words. Scattered over the length and breadth of this land are men of no training and less knowledge of mining who sell themselves to the unscrupulous dealer in mining propositions. The public at large has little acquaintance with the professional standing of the various individuals who make reports upon mining

properties, the name of one man looking as good as that of another provided he has appended thereto the letters E. M. Most people are unable to read understandingly the report of an engineer. This being the condition of the public, it is often led to invest in worthless properties through the silver-lined reports of these pseudo-professional men. There should be some way of publicly branding these fakers, for they are often more dangerous than the promoter whose mine is merely a castle in the air. How best to bring about a change in this condition is a matter worthy of your consideration.

Fake Promotion.

As a result of the activities of this organization several of the states have enacted laws to punish the man who handles mining stocks with the purpose of defrauding the public. There is a wide difference between investing in mines and investing in mining companies. It has been conservatively estimated that it costs 50 per cent of the selling receipts to meet the expense of such sales; and while it might be possible to estimate the amount of money going into mining propositions it is not easy to determine how much is going into actual mining. Over-capitalization of many otherwise meritorious mining propositions has long been practiced, and I believe that another method of restoring confidence in the mining business would be to urge upon the several states the enactment of laws which would prevent this imposition from being practiced upon the investing public. I would respectfully call your attention to the advisability of recommending the enactment of laws taxing mining ventures on their stock issued, as suggested by Mr. Everett at the fourth annual session.

We should devote some of our time to a proper treatment of the public, which "is so directly interested in this industry and in which the industry is so directly interested." The record of successes and failures of all industrial enterprises shows that the mining business offers fewer chances of failure than most commercial undertakings. It requires no more capital, there is less competition, less danger of

over production, and always a market for the products. But like any other venture, it must be run on business principles or it will fail. Chance usually plays an important part in the original discovery, but it is the application of business methods that makes the operations successful.

Employer's Liability Laws.

In that masterful address by David Ross of Illinois at the twelfth annual session of this organization on Employer's Liability Laws it was pointed out that under our present system of judicial procedure the burden of proving negligence, upon which the recovery of damages in the case of accident depends, rests upon the plaintiff. The difficulties surrounding the producing of this evidence and the consequent practical impossibility of securing reasonable and just compensation for injury through the strictest employer's liability laws, are evident to any one who has come in contact with such proceedings. It appears to me to be within the province of this body to consider this subject and suggest any plan thought desirable to adjudicate such claims. This question has been under consideration by the committee on "Coal Tax Insurance Fund" for a year, and to this report your earnest attention is invited. Let us, as a representative body of mining men, not only reach out with our influence to secure such legislation as may lessen the dangers attendant upon mine explosions, but also let us give our influence to the perfecting of plans whereby the laborer and his family may be adequately compensated, in case of injury or death.

Mine Inspection Laws.

Uniformity of State laws governing mine inspection will be the subject of a report by one of the standing committees. The laws regulating mining are as many and as varied as there are mining states. Many of the provisions of these laws might be made uniform throughout the country, in spite of varying local conditions. The recommendations of this committee should be carefully considered, both from the standpoint of the operator and the miner, recognizing

at all times the varying conditions to be met in the different districts.

Mine Sanitation.

While we are giving attention to safety in mining we should not forget the question of health arising from the ordinary conditions existing in the mines, both coal and metal. The breathing of dust from drilling machines and from illuminants, and also from deteriorated air, is harmful to those who spend their nights or days beneath the surface.

It is possible that something might be done to better the conditions in the way of sanitation and ventilation, whereby the occupation of mining might be less dangerous to the health of the miner. The use of a different illuminant and the invention of a drill, which will lessen the amount of dust, will go a long way towards rectifying these conditions. These are pertinent subjects for the investigation of the Bureau of Mines.

Mining Education.

This organization should express its continued interest in mining education. The public, let alone those engaged in the business of mining, know too little about even the elements of mining. The establishment and maintenance of mining schools in many of our states has been a struggle against the widespread demand for agricultural and general engineering education, which, of late years, has swept the country. We maintain that mining is as important to the industrial development of the country as agriculture, and there is no reason why our government should not provide as liberally for the one as for the other. It is surprising to learn how little is known by pupils of the public schools in mining districts about the industry which is such a conspicuous part of the every day life of the people with whom they live. If the people in the future are to have a better appreciation of the mining industry, there should be some general instruction in the public schools that will direct their attention to that industry.

Your attention is called to the need for more trade schools, wherein artisans may receive instruction in their

several trades during short vacation periods. In agriculture, short courses are being provided for the benefit of the farmer who has not had the opportunity to take a regular University course of instruction. Why should there not be established in connection with our Schools of Mines, similar departments, with no requirements for entrance, except a desire for knowledge. The Mining Congress should have a standing committee on mining education whose duty it should be to encourage the dissemination of knowledge relative to mining and the allied industries, both as pertains to the public schools and our Schools of Mines. They should do all in their power to assist the schools to secure adequate assistance from the State and Federal authorities.

Mining Stocks.

One who has given any attention to the price of mining stocks, as quoted on the various exchanges of the country, cannot help but be struck with their constant fluctuations, regardless of the actual changes in the condition of the properties. Stock which is quoted at fifty today may be fifty-five tomorrow, and within a week it may be sixty, with no actual change in the value of the property itself. The price of mining stocks does not depend altogether upon the earning power of the property. The fluctuations are the result of buying and selling, chiefly on margins, which is nothing more nor less than gambling. The business conditions of the country would be vastly improved were it possible to eliminate this speculative element from our industrial activities. There is now a movement on foot led by the Mining and Metallurgical Society of America, to provide the New York Curb Exchange with authentic reports concerning the actual condition of mining properties listed on the Exchange. This proposition ought to receive the hearty endorsement of the Mining Congress, and any assistance that can be rendered should be offered our sister organization in her efforts to bring this about.

The reports of many mining companies are very meager as to earnings and reserves, on account of which stockholders are poorly or not at all acquainted with the condition of

the properties in which they have invested their money. What rights have the individual stockholders in a mining company? In what respect do the rights of the minor stockholder vary from the rights of the majority stockholder? I conceive that the least owner of stock is as much entitled to know the standing of the affairs of a company as the greatest. The suppression of information by the officers or directors from the stockholders is dishonorable and dishonest, and should be condemned by this body. I trust that there may be some way suggested by which this body can assist in bringing about a better, safer, sounder condition in the stock markets of the country. I may suggest that one way of doing this is to urge upon the various companies the importance of issuing printed monthly or bi-monthly reports covering in detail the condition of the property.

Conservation.

During the past few years much has been said and written upon the subject of conservation of our natural resources. It is an old subject, almost as old as civilization. It is a question of extravagance; a question of wasteful and luxurious living. We have been and are today living in a land of plenty, and perhaps too little thought has been given to the careful exploitation of our natural resources. The great corporations of the country are being looked upon by the public as the destructive agents of the present generation. Strange as it may seem to some, in the mining industry, at least, they are the least wasteful of the natural resources, which they are engaged in exploiting; although the individual may, in his personal habits, be criminally extravagant, and the corporation may enter into harmful combinations in restraint of trade. I do not think that the waste in mining can be charged against any class; the poor and the rich, the individual and the corporation, should each be held accountable for his part of the consumption of commodities which are necessary to our conception of the highest type of civilization.

There appears to have been some confusion of the question of conservation with that of ownership of the public do-

main. They undoubtedly have some relation to each other, but in their fundamental natures they are distinct problems. Dr. T. C. Chamberlain of the University of Chicago has recently made the point, and rightly I believe, that "Conservation of our natural resources centers in the scientific and technical," while "the right of ownership and the most desirable distribution of ownership center in the political and sociological." This means that whenever it shall have been determined whether the lands of the public domain shall be owned or leased by the individual, company or corporation, we will still be confronted with the question of conservation.

As far as the conservation of our mineral resources is concerned, it must be conceded that such ownership or distribution of ownership as will result in the least waste, is theoretically the most desirable. Whether the government should use the lands of the public domain as a source of revenue, regardless of whether or not the result would be less waste, is a question involving other fundamental principles for its settlement.

This organization is vitally interested in conservation, as well as in the question of the disposition of the public domain, in so far as it affects the mining industry. I do not wish it to be understood that this body has less to do with the one than with the other, but this I do wish to emphasize, that in dealing with these questions, by resolution or otherwise, consider them apart from each other as far as possible.

Feeling that this Congress should have a part in shaping any legislation which may be in the interests of conservation or which may deal with the disposition of the public lands, we have invited some of the most thoughtful men of the country to address you on these important subjects. What they say may in some way help to clear our minds as to what policy, while being just to the present generation will be best for the future welfare of the nation.

Four things appear to be perfectly clear in a consideration of the conservation problem. First, as mining men we cannot afford to have the government enact legislation which will make the occupation of mining more hazardous than it is, either respecting the protection of life, or the in-

vestment of money; second, that nothing shall be done that will in any way retard the development of our manufacturing industries that depend upon the products of the mines for their business; third, that everything possible be done to increase the percentage of metals that can be recovered from the ore bodies and from deposits of coal, oil and gas; fourth, to bring about as quickly as possible the use of substitutes for the present sources of power and for the metals which are supposed to be very limited in quantity. There should be the fullest development of our mineral resources, under such Federal or State co-operation and regulations as will insure the maximum elimination of waste, it being agreed that our mineral resources should be exploited with intelligence, and in a fair and upright manner.

The attention of the public has been directed especially to the consumption of the mineral fuels, for upon these, perhaps, more than anything else, depends the future of our manufacturing, transportation and commerce. It is evident that it requires a constantly increasing quantity of power to maintain manufactures, transportation and commerce; and as long as this power is supplied by coal, oil and gas, legislation which either increases the price of these or removes them from exploitation, can lessen their consumption only by increasing the price of manufactured commodities or by lessening the volume of business.

If it is desired to bring about a decrease in the consumption of the mineral fuels, without lessening the growth of our manufacturing industries or increasing the cost of commodities, one of two things must happen: the efficiency of the mineral fuels must be increased, or substitutes for the mineral fuels must be made available. The waste in mining is said to approximate 50 per cent. This waste, however, cannot be decreased beyond a point where mining becomes profitable. Under the present conditions of the industry there appear to be five ways in which this waste may be lessened, viz., by improved methods of mining, by decreasing the profits, by increasing the price of coal to the consumer, by reducing the price of labor and by securing

markets for the poorer grades of coal. In the direction of improved methods of mining and marketing the poorer grades of coal, the Bureau of Mines should be of assistance. In some of the other directions there may be an opportunity to decrease waste, but these are matters which require investigation. There is a fixed amount of energy stored up in the mineral fuels of the country and no device of man will be able to increase this amount. In simple terms then, it is a problem of making this fuel supply last as long as possible or until such time as there may be no need for it. To bring this about something can be done by eliminating waste; something can be done by prohibiting exportation; something can be done by increasing the efficiency of these fuels when burned under boilers; something can be done by discovering new sources of power or by encouraging the use of other powers now known but as yet imperfectly developed.

In searching for ways and means of eliminating waste in mining; in the investigation of ways and means of securing greater efficiency, more heat and power, from the mineral fuels; in the investigation of new sources of heat and energy and in making available other known sources there is a vast and important field for governmental activity.

In this connection I cannot help but refer to the utilization of our water powers. It has been estimated that the water powers of our streams are capable of producing about 30,000,000 horse power; more than is necessary to turn every wheel of industry in the country. Of course some of this power is not at present available and probably will not be for generations to come. But much of it is, and such power should be used, since the quantity available from day to day will not diminish but that which is not used today is lost forever. It appears to me to be very important that the development of the water powers of the country should be encouraged to such extent that the increasing demand for coal and the other mineral fuels may be lessened. Permitting the water powers to remain idle is the greatest waste of energy that is being recorded on the continent today.

The man who is engaged in mining is also interested in

conservation as it affects our forestry policy. I think that everyone is interested in the conservation of our forests; that is, the protection of our timber supply against the waste and destruction which have marked the advent of the lumberman in his march across the continent. On the other hand, the rulings of the Forestry Bureau have, in some instances, caused unnecessary hardships to the men engaged in mining who have sought to secure timber for their legitimate operations. This may not be due so much to the rulings of the Forestry Bureau as to the placing in the hands of incompetent and irresponsible forest rangers the authority to interpret and enforce these regulations. It appears that there should be some easy and quick method of supplying those engaged in mining with the timber necessary to carry on their operations. The adjustment of these difficulties ought to be brought about with satisfaction to all concerned, through the medium of the Bureau of Mines, which should represent the mining industry in all questions of this character.

As in the case of fuels, there will be no diminution in the amount of timber cut and manufactured into lumber until the public is supplied with materials for building which will be equally as satisfactory and as cheap as lumber, or until the demand for structural materials shall lessen. No one anticipates a time when the demand for building materials will lessen, for that means business stagnation and industrial decadence. However, we all look forward to the time when brick, tile, terra cotta and concrete can be used in building construction at a cost which will not exceed that now paid for lumber. We possess stone and clay in unlimited quantities, and from these can be manufactured all the structural materials that will be needed by our civilization for ages to come. The increased use of these materials will lessen the demand for wood and to that extent conserve this fast diminishing resource. One of the great problems of the present day is to discover methods of manufacturing brick, tile, cement, lime and other structural materials which will so cheapen their cost that the public will prefer them to wood from the standpoint of economy. This may require

years of patient research, but to this end the Federal and State authorities should lend their generous support. However, as long as wood can be obtained at less cost than these more durable materials, it will be used by the public and no legislation, Federal or State, can prevent a gradual diminution in our forest reserves outside of the public domain.

Among our metal resources iron and steel, from an industrial standpoint, may be considered the most important. The rapidity with which our known iron ore reserves are being exploited may justify the apprehension that within a century or two this material will be insufficient to supply the demands of industry. There are, however, vast quantities of low-grade iron ore which have been ignored in most estimates of iron ore reserves. It is believed that these ores will become available through improved processes of concentration or smelting by the time the richer deposits fail to supply the demands of the iron and steel industry. Before all of our iron ores are exhausted undoubtedly other materials will have been discovered which will serve as substitutes for iron and steel. We know, for example, that aluminum, which is now produced in limited quantities from the oxide of that metal, can be used in many places as a substitute for steel and iron. There are unlimited quantities of aluminum combined with silica in the form which we know as clay. In quantity it is as nearly inexhaustible as any material we have. I feel confident that some day we will know how to separate, commercially, the aluminum from the silica, thereby providing a metal substitute for iron and steel. The accomplishment of this will add more to our metal resources than can ever be expected from a mere process of saving. When aerial navigation shall have been successfully developed, and there shall have been discovered a process by which aluminum can be obtained from clay on a commercial basis, the problem of our future iron supply will have been practically solved.

In the present stage of our industrial development copper is an extremely important factor. There is every evidence at the present that this material occurs in sufficient abundance to meet all of our industrial demands for many

decades to come. The demand for this metal will increase with the development of the wireless telegraph, the wireless telephone and the storage battery cars. With the development of these new methods of transmission I confidently anticipate that the time will come when the demand for copper will decrease rather than increase. Aluminum may also, in time, be substituted for copper for purposes of electrical transmission.

Whether a time will come when substitutes will be found for lead and zinc it is not so easy to predict. These metals are used for a multitude of purposes, many of which could be eliminated without seriously affecting our industrial progress.

The history of mining during the century just passed disclosed the fact that nine new metals have been added to those having an industrial application, and that the technology of more than twenty minerals, and the extension of the application of others, has added great wealth to our country and brought increased prosperity to our people. Then, may we not expect, with adequate provisions for research, that new developments during the present century will more than offset the diminution in the supply of those metals upon which our present industrial activities so largely depend? Just as we search for new gold fields, when others have been exhausted, so, when the supply of one material essential to our industrial activities nears exhaustion, we will reach out into the unknown and discover new sources of power and new materials for construction. I believe that by making adequate provision for research the time when new resources of supply of power will be needed will be greatly postponed; and that when new sources of power are required the intelligence and energies of a nation like ours will discover them and make them answer the demands of commerce.

Although I am opposed to any policy which removes from the public the possibility of developing any of our mineral or allied resources, I would not have you think that I am opposed to conservation, or that I wish in any small degree to retard the movement against the extravagance of

our people. I deplore the fact that we place so small a value upon the lives of our citizens working in our mines; I deplore the waste of our mineral resources, and I believe that the Federal and State governments should do everything in their power to protect the lives of their citizens and compel individuals and corporations, while using our resources, not to abuse them.

I am not opposed to the organization of our industrial activities through the formation of well-capitalized corporations. Any criticism that might be offered would be directed against the methods by which the business of some of them is conducted and the utter lack of respect that some of them have for the less powerful competitive organizations and for the public at large. It is generally believed by the public that the waste of our mineral resources is chiefly chargeable to the great corporations. This is, of course, a mistaken idea, since it is an easily demonstrable fact that in mining the greatest percentage of waste is found in the smaller, more poorly equipped mines, and not in those that are well capitalized. The great mining corporations do cleaner work, often make a higher percentage of recovery and use to better advantage the by-products than do the small companies having limited capital.

I believe that our governmental activities should be directed to the control and regulation of our great industrial organizations, while at the same time generous support should be given by the Federal and State governments to technical and scientific investigations. Through the proper encouragement of research I believe that the ingenuity of our people will meet the conservation problem, and that the expansion of commerce and manufacturing will go on, unless luxurious living, too often the accompaniment of great wealth, destroys this nation, as it has the great civilizations of the past.

Ownership of the Public Domain.

The question of the ownership of the public domain, as suggested above, should, as far as possible, be considered apart from that of conservation. In doing this it should be

remembered that ownership, which may be otherwise desirable, may be undesirable from the standpoint of conservation and vice versa. In all discussions, which may come before you bearing on this question, keep clearly before you the fact that the question of ownership is political and sociological, while conservation is technical and scientific.

It is not my purpose to discuss this problem, but when you consider it in the sessions of this Congress, or in committee, remember that one of the greatest incentives to exploration, to prospecting, in this country has been the right of possession after discovery. Remember that the possession of water power rights is often an important adjunct to the successful development of mining properties; and that without timber, however important it may be as a means of conserving the rainfall of a region, it would be impossible to operate many of our most important mines. It appears that any proposed legislation bearing upon the disposition of the mineral lands, lands containing water power sites, or forested lands, which might discourage prospecting or make mining more hazardous, should be carefully considered before being approved by this body.

Conclusion.

The American Mining Congress has accomplished something in the years passed, what it may do in the future lies in your hands. You are here to outline a policy for the coming year. It is the duty of the officers and Board of Directors to carry out these plans as nearly as possible, or as may be consistent with the success of those which may be deemed most important. Remember that it requires time and money to accomplish those things which you may outline, and when you vote to have this Congress use its best efforts to secure some legislation, and do not provide the means to carry on this work, you are expecting an income without an investment. In case you ask this Congress to do anything which requires expenditure of time and money, you will do well to accompany that request with some feasible plan whereby the necessary finances may be provided.

It is an easy matter to provide a finance committee, but it is not easy for such committee to secure the funds required to defray the expenses of the association's activities. It may do some good to pass resolutions memorializing Congress to pass such and such bills, but if you earnestly desire the passage of any measure, such resolutions must be followed by an active campaign, which requires both time and money.

This association was organized to teach mining men the value of co-operation; that success cannot be measured by another man's failure; that we must have a decent respect for the lives and health of the men that toil beneath the surface; that there must be a willingness to provide adequately for the men and their families who suffer through accident or death; that there should be laws to restrain and punish the man who is in part responsible for the disrespect in which this profession is held, the fake promoter, who parasites on the public; that all the bureaus of the Federal and State governments, engaged in investigations associated with mining, are helpful to the industry and deserve our generous and undivided support; that much needful Federal and State legislation, helpful to the mining industry and for the protection of our mineral resources, may be enacted through the united efforts of a representative body of mining men.

It is intended that this organization shall foster and promote mining in all its various branches, and to do this its growth must be commensurate with that of the mining industries of the country. It should be represented by men from all the various fields of mining activity and its meetings should be forums for the full and free discussion of all problems that may pertain to the industry. The interests of the mining industry cannot be left in the hands of men who are engaged in agriculture, forestry, manufacturing, transportation or commerce. They must be cared for by organizations of mining men, and I beseech you, in closing, to contribute to this organization the best that you have in order that it may be a power throughout the land.

The Bureau of Mines and Its Work.

BY DR. J. A. HOLMES, DIRECTOR BUREAU OF MINES,
WASHINGTON, D. C.

The Bureau of Mines was created by Congress as the result of a widespread demand coming not only from the mining industry, but also from the general public in different parts of the country.

This movement for appropriate recognition and aid for the mining industry from the National Government has been under way for many years. Among its early and most active supporters have been the California Miners Association and the American Mining Congress. It is, therefore, eminently appropriate that at the first session of this Congress following the creation of the Bureau of Mines at a session held in California something should be said of the policy and purposes of the new Bureau.

The Purpose of the New Bureau.

The chief purpose of the Bureau of Mines is the development of greater safety and efficiency in mining. It may be expressed in another way as "lessening the loss of life and the waste of resources" in connection with the extraction, treatment and utilization of American mineral resources. Or as expressed in a yet different way, its chief purpose is the "conservation of the lives of the miners and the mineral resources of the country."

If, in view of the fact that the Bureau has no means of enforcing and carrying out its recommendations, the question is raised as to how it can aid in the accomplishment of this purpose, it may be said in answer that the Bureau neither needs nor desires any authority except that based upon an enlightened public opinion. The Bureau will endeavor to aid the carrying out of its purposes by conducting investigations and inquiries into the best mining and ore treatment practices to be found in different mining coun-

tries, and into the fundamental chemical and physical problems that serve as a basis for more efficient metallurgical operations. It will thus endeavor to discover and point out how all branches of the mineral industry may become both safer and less wasteful; but the Bureau will leave to other agencies the enforcement of new requirements, or even the adoption of its own recommendations.

It will, to quote the language of the statute creating the Bureau, "make diligent investigation of the methods of mining, especially in relation to the safety of miners. and appliances best adapted to prevent accidents, the possible improvement of conditions under which mining operations are carried on, the treatment of ores and other mineral substances, the use of explosives and electricity, the prevention of accidents, and other inquiries and technologic investigations pertinent to said industries, and from time to time make such public reports of the work, investigations, and information obtained as the Secretary of said Department may direct, with the recommendations of such Bureau." It will publish the result of these investigations and inquiries in such form as to make them easily interpreted in daily mining and metallurgical practice in the United States.

Relations of the Bureau to the Work of the States and Private Parties.

The new Bureau will do everything it can to encourage each state in the investigation of its own local mining problems, and in the proper inspection and supervision of the mines operating within its borders. It will do everything possible to help maintain and increase the influence and effectiveness of the State Mine Inspectors, State Mining Schools, Surveys, and Mining Departments. It will endeavor to co-operate with, but not to belittle or supplant, the work of the State.

Similarly, it will do everything within its power to encourage private mining corporations, through the employment of the best engineering talent, to investigate their own local problems, with the view of lessening the loss of life

and the waste of resources. The Bureau's work will be done for the industry, not for the individual or corporation. Nevertheless, it is hoped that its work will be helpful to many or all individuals engaged in the industry.

It will itself take up inquiries and investigations in which the National Government as such is a party at interest, and those other problems in relation to the mining, treatment and utilization of our mineral resources that are general in their application, or National in their importance.

The Bureau will in this way endeavor to minimize the responsibility of the Federal Government; and to minimize the contribution which the Federal Treasury may be called upon to make in behalf of a proper development of the mining industry.

In the wise development of our two great foundation industries, agriculture and mining, which are alike essential to both the present and the future welfare of the nation, the Federal Government, the State and the private individual or corporation each has its responsibility and its duty to perform, which responsibility and duty no one should shirk. The welfare of each is essential, and each should co-operate with the other for the accomplishment of the important purpose in view, i. e., the safest and the wisest or most efficient use of our resources, considered in their relations to both the individual and the nation, both the present and the future.

Relations of the New Bureau to Other Organizations.

The Bureau of Mines will be one of many agencies at work for the accomplishment of the above mentioned purposes. Those associated with it should recognize the full value and the importance of continuing with increasingly liberal support the admirable work carried on for many years in behalf of the mining industry by the United States Geological Survey, the State geological surveys, the mining schools, the mining journals, The American Institute of Mining Engineers and other younger mining organizations.

Each of these has its own work to do and there is work enough for all. As one of the agencies for the betterment

of the mining industry the Bureau's relations to each of these others should be that of friendly good will and mutual helpfulness.

Relations to the Mining Engineer.

The work of the new bureau will not diminish the work of the private mining engineer; but, on the other hand, it should increase his work by pointing out to mine owners additional problems which the engineer should be called upon to solve at the cost of the parties most interested.

When, a few years since, technical investigations of fuel were begun by the United States Geological Survey the fear was expressed that the work would interfere with the work of the private laboratories. But the result has been just the reverse. The then existing laboratories have been enlarged and new laboratories have been established to take care of the additional work developed directly or indirectly as a result of these investigations by the Survey and the educational campaign that accompanied them. It is believed that a similar result will follow from the investigations to be conducted under the Bureau of Mines.

In all its relations the aim of the new Bureau should be that of helpful co-operation, not that of competition, domination or suppression. And in its endeavors to carry out these purposes for which it has been created the officers of the Bureau hope to procure in turn the active co-operation of the agencies of the states, the mine workers, the mine owners, the mining engineers, the geologists, and chemists, the mining schools and the mining journals of the country.

The Bureau of Mines and the Conservation of Resources.

The enthusiast in preaching conservation of resources has sometimes done harm to the doctrine by claiming that, in order to perpetuate the state's resources for future use, there should be curtailment of the use of these resources to-day. But among intelligent people, like the average citizens of the United States, any doctrine to succeed must have a rational basis. And the man who asks the question, "Why concern ourselves about the future supply of mineral re-

sources which seem to be inexhaustible?" must be given a rational answer.

We may as well understand that neither the state's nor the nation's needs will be curtailed, even if we do destroy the supplies from which her needs can be met. These needs will grow with the extent and variety of our industries; and they will grow even more rapidly than our population, as is shown by the rapidly increasing rate of per capita consumption of mineral products during the past century.

We may as well understand also that the men of this generation will not mine, extract or use mineral resources today in such manner as to entail financial loss to themselves in order that a supply may be left for the use of future generations. There will be no mineral industries without profit to those who make investments for development purposes. Men do not go into the mining business for their health. And any consideration of the doctrine of conservation of resources must be accompanied by a consideration of the doctrine of conservation of capital, and conservation of human life.

Furthermore, the present generation has the power, and it has the right, to use these resources in so far as it will use them efficiently. It has the right to use as much of these resources as it actually needs. But the statesmen of today should remember that in any state, and in the country at large, we have but one supply of mineral resources; and when this supply is gone we shall have no other to take its place. They should remember, further, that this one supply has required millions of years for its accumulation; that the demands on this supply will increase even more rapidly than our population; and that this supply, however large, measured in the terms of the needs of a great and rapidly growing country, is a limited supply.

The supply is **not** inexhaustible. Whether we consider the resources of any state, or the resources of the United States, there can be no doubt as to the fact that, measured in the terms of the life of the state or the nation, at the present increasing rate of consumption and waste, we shall,

while the state and the nation are yet in their infancy, exhaust the mineral resources necessary as the essential basis for the welfare of succeeding generations.

Having this information at hand, neither the state nor the nation can shirk the responsibility resting upon it, on the claim that succeeding generations will probably discover other unknown resources for their use for such conclusion would be unjust and irrational. More irrational even than it would be for the farmer to use up his farm's supply of provisions during the first half of the year, trusting to luck for the other half year's supply.

The right of the present generation to use efficiently of these resources whatever it needs, carries with it the great obligation not to waste the sacred heritage that has come down to us for the use of all succeeding generations of American citizens.

It is, therefore, reasonable that the users of the mineral resources of the state and of the nation will pay for them such prices as will make profitable their mining and preparation without waste of resources or loss of life.

The very abundance and cheapness of our resources have developed an American habit of waste which is the greatest menace to our future welfare. This waste of the past and the present, and the rapidly increasing needs of the future entail on us a still greater obligation to strive for the highest possible efficiency in the mining and use of these resources. The Bureau of Mines will conduct such investigations of the resources of the country as will bring about not only larger development and greater present and future prosperity, but also such investigations as will, by diminishing the waste in the mining and use of these resources, aid in perpetuating their supply for the future well-being of the nation.

All unscientific or inefficient use of resources is waste; and the most encouraging element in the movement for rational conservation is the fact that the seemingly necessary waste of today, through inquiry or research, or through

changes in economic conditions, may become the avoidable waste of tomorrow.

The New Bureau's Appeal for Greater Safety in Mining.

Every one responsible for the establishment of the Bureau of Mines realizes the fact that its first duty is to aid in lessening the loss of life in mining. Those associated with the work of the Bureau realize that the mine owners of this country are in sympathy with this purpose, and that they stand ready to put into practice, as far as conditions will permit, every practicable recommendation and suggestion that the Bureau may have to make.

On the other hand, the people of this country should realize that many of the safety methods and appliances used in other countries, where the profits of mining, and especially of coal mining, are far greater than in the United States, cannot be easily introduced into the United States, because their cost would exceed the profits of the industry here; and no industry can operate on a basis of continued financial loss.

Nevertheless, progress is being made, as shown by the fact that the loss of life in the American coal mines has decreased more than 25 per cent during the past two years. If the miners, mine owners, and mine inspectors of the country will more earnestly co-operate with the Bureau and with each other in a determined effort, the result will be a still further lessening of this loss of life, during the current year and in the year to come.

The appeal of the new bureau is therefore to every man connected with the mining industry in this country, in coal mining, metal mining and quarrying, to the mine worker, the mine owner, and the mine inspector, that he do everything that can in reason be done to safeguard the lives of the men who labor under ground; to see that the disasters at Monongah, Darr, Marianna and Cherry shall have no counterpart during the winter of 1910; and that in coal mines, metal mines and quarries the daily toll in lives of workers from causes less impressive, but in the aggregate more destructive than these awful disasters, shall steadily diminish.

Of all the great mining countries, the United States is pointed out as the most wasteful of both life and resources. It was with a view to remedying this situation that a National Bureau of Mines was created.

In the demand for the creation of this Bureau, the mine owners and the mine workers alike have joined. Let no one of these suppose for one moment that with the establishment of the Bureau, his work has ended; for in reality it has only just begun.

It is only under the good advice of those most familiar with all branches of mining that wise leadership by the new Bureau can be properly developed. It is only through the hearty determined co-operation of the mine owners and the mine workers of the country, that substantial progress toward better conditions can be made. And in the largest branch of our mining industry, i. e., coal mining, and in all competitive mining industries, the law maker also must contribute by helping to improve the economic conditions which now hinder wise practice and development.

All these agencies must co-operate if the mining industry as a whole is to reach that higher standard of safety and efficiency which should characterize the American industry, and to which we look forward with full hope of accomplishment.

There are many difficulties in the way; and the path in all cases will not be plainly marked. There will be differences of opinion, both as to what should be done by the new Bureau and as to the mode of procedure. But the Director of the Bureau of Mines wishes the officers and members of the institute of Mining Engineers, of the Mining and Metallurgical Society, and of the Mining Congress and other representatives of the mining industry to know that their suggestions and advice will be welcome always. He realizes that this Bureau is theirs, not his. He has outlined above certain lines of policy which he believes should be followed by the Bureau in its work. In carrying on this work he must follow the acts of Congress as interpreted by the Secretary of the Interior. But as a fundamental pro-

position he believes that in their plans for the development of the new Bureau both the legislative and executive branches of the government will be glad to know, and as far as possible to comply with, the wishes of the representatives of the mining industry.

It will be the aim and the pleasure of the first Director of the Bureau in carrying out whatever plans may be decided upon, to render disinterested loyal service in all branches of the mining, metallurgical and quarry industries, in all parts of this country.

Conserving Our Coal Deposits.

BY EDWARD W. PARKER, U. S. GEOLOGICAL SURVEY,
WASHINGTON, D. C.

In the popular mind the cause of conservation had its beginning in the calling of the first conservation congress in 1907—and that was the time of popular awakening, but as has been recently pointed out by Dr. C. W. Hayes in an address delivered at Chicago, for a quarter of a century or more before the calling of that famous convention, thinking men had been studying the problem and had recognized the necessity for an abatement in the wasteful methods of utilizing our natural resources. We were rich and we were profligate, (some of the lumber men of the eastern and southern states are already on the husks) but credit should be paid to some of the men—many of them now dead and gone—who were pioneers in conservation work, though not so known at that time. Dr. Hayes calls attention to the great work of Major Powell, the second Director of the United States Geological Survey, sainted now in scientific memory at least, and how the possibilities of irrigation, and thus reclaiming, or conserving, the use of the arid lands clearly and forcibly pointed out by Major Powell as early as 1878 found their realization 24 years later in the enactment of the Reclamation Law of 1902.

Actual practical work in the conservation of our coal supplies was being carried on when many of those present at this meeting were studying their grammars and geographies and knew little, and cared less about the waste of natural resources or anything else. When we consider that although to the close of 1908 we had produced and consumed in the United States over 7,280,000,000 tons of coal, and that this production and consumption represented (allowing one-half a ton of coal for each ton mined) an exhaustion of nearly 12,000,000,000—when we consider that this has used up only four-tenths of one per cent of the original supply, and that there

still remains unmined from 4,000 to 5,000 times the present yearly production it does not appear that the citizens of the United States will be suffering for fuel for some time to come. But it must be remembered that by far the larger part of the coal still remaining is either of low grade or accessible only with difficulty, and at greatly increased mining cost. We are taking the best and the most easily mined and we have been using it in a reckless, wasteful manner, but we are learning better. And we have got to do better for at the present increasing rate of production we may look for the exhaustion of our high grade and easily mined coal before the middle of the next century. Then the coal men will be getting down to the husks. The husks may last a long time, but they are mighty poor diet compared with what we have been and are now enjoying.

Conservation of coal began in the anthracite region of Pennsylvania. Here, within a small area of less than 500 square miles is the most valuable supply of coal known in the world. The early methods of mining, marketing and utilization of anthracite were in the light of present knowledge horrible examples of profligacy and waste, but probably as well as could be done under the conditions that existed at the time. Competition instead of being the life of the trade came near being its murderer. Yet man was not nearly so wasteful as nature had been, for while nature had been generous in the first place, she was more wasteful than her children. It has been estimated that of the total supply of anthracite originally deposited only 6 per cent remained when man began to utilize it. Ninety-four per cent had been lost.

Back as far as 1883 or 1884, nearly 25 years before the calling of the first conservation congress, the necessity for the conserving of the remaining part of that six per cent of anthracite was borne in upon some of the thinking men engaged in the industry. When the movement, headed by Eckley B. Coxe, P. W. Sheaffer, Wm. Griffith, and a few others, began, it is doubtful if the recovery of coal was as much as 40 per cent, 60 per cent being lost, partly in the pillars left to protect the workings, partly in the small coal

thrown on the culm banks and for which there was no market, partly in simply bad mining. The matter being brought to the attention of the Governor of the State, he appointed the Anthracite Coal Waste Commission, composed of three of the most prominent mining engineers in the Anthracite region. The commission made its report in 1887. It was the first conservation report, and as a result the waste in the anthracite region has been so diminished that now it is estimated that the recovery exceeds 60 per cent and the loss is less than 40 per cent. Moreover, in addition to the larger recovery, at present, provision is made for subsequent recovery of a large part of the coal now left as pillars. This is practical conservation. In order to accomplish it, it has been necessary to put the industry under a close control and to eliminate competition except so far as bituminous coal competes with anthracite—to create practically a monopoly of the Anthracite supply, but I do not believe this has resulted in any oppression of the people by extortionate prices, not by operators anyway. The average price of Anthracite at the mine ranges from \$2.25 to \$2.35 per long ton and of this 40 per cent consists of pea size and smaller, much of which is sold below cost of production. It is only by the closest scientific economy in the mining and preparation of anthracite that prices are kept as low as they are.

The competitive conditions that formerly existed in the anthracite region still obtain throughout the bituminous producing states. Mine competes against mine, district against district and State against State. Illinois is jealous of West Virginia; Iowa, Arkansas and Oklahoma operators complain of unfair competition from Illinois coals; the New River, Kanawha, and Pocahontas districts of West Virginia are rivals for the same markets, and almost a trade war exists between the southwestern districts of Illinois and those of the northern and southern parts of the State. Similar conditions exist in other parts of the country and the effect is unwholesome. It is against the conservation of the coal, and worse than that, it is against the conservation of the lives and limbs of the men who labor in the black holes of the coal mines. There is not sufficient margin between the cost

and the selling price of bituminous coal to enable the operator to mine the coal to the best advantage in the long run, nor to provide the proper appliances and superintendence to secure the maximum safety to the employees. This competition between States makes it difficult if not impossible, to secure the proper legislation looking to greater safety in the operation of coal mines, for the law-making body of one State is not apt to enact legislation which will place one of its important industries at a disadvantage with a competing State. Still less are the legislators inclined to enact laws that will restrict the miner in the exercise of what he considers his personal liberty.

I know the idea is not popular in some circles, but I am thoroughly convinced that the most crying need in the coal mining industry today is the ability to enforce discipline among the mine workers. As it is now there is not, so far as I know, any State laws which make it a penal offense for a mine employee to put his own life and that of his fellow workers in jeopardy. The only punishment meted out is the death or injury that results from the catastrophe. The coal mines of this country should be under as strict police surveillance as they are in Europe and both operators and miners should be made to obey the laws. When such is the case we will conserve some of the coal and a good many of the lives, but it will increase the cost of coal to the consumer. Of what use to establish mine rescue stations except to recover dead and maimed bodies if rules and regulations cannot be enforced.

One of the most reprehensible practices in the mining of bituminous coal is that of "shooting from the solid," a practice that has increased through the custom forced upon the operators in some States of paying for the coal on a mine run basis. It results in "making the powder do the work" of the miner and this adds materially to the naturally hazardous character of the miners' employment, in increasing the liability to explosion due to the frequency of windy shots, and the excessive charges of powder necessary to do the work weaken the roof and pillars and increase dangers from fall of roof and coal. It is abominably bad and yet the

State of Oklahoma, and I believe also Kansas, have by act of legislature, put a premium on this kind of mining.

The shooting of coal from the solid and paying for the mining on a mine run basis, except in cases where the slack coal may be used to advantage in the manufacturing of coke, is anti-conservational in the production of a disproportionate quantity of either unsalable or undesirable coal.

When, in the effort to conserve our resources, the expense exceeds the benefit to be derived the cause has got to suffer. Much has been said about our wasteful methods of making coke in the bee-hive ovens and the fact is that the value of the gaseous contents of the coal that are wasted each year exceeds \$50,000,000. It has been a question however, under the conditions existing in this country, whether it would not cost more than that amount to save it. Up to quite recently the tar produced in the manufacture of illuminating gas has been a drug on the market and much of it has been thrown away or burned for fuel at the works. With the increasing scarcity and higher cost of railroad ties, however, there has been a notable increase in the demand for creosote oils, a product of the coal tar, for preserving the life of the ties, and the development of the coal briquetting industry in different parts of the country is creating a demand for the residual pitch. This is giving an impetus to the retort-coke oven industry, and in the course of time the bee-hive oven will disappear from the United States as it has disappeared in Germany, Belgium and other European countries. The change will be gradual as there is a large amount of capital invested in bee-hive oven plants, but it is gratifying to note that while the first by-product recovery plant of 12 ovens was put in blast in 1893, retort-oven coke in 1908 was 14 per cent of the total output. Some of our coke makers, by the way, might learn a lesson from what is doing in our neighboring republic of Mexico. Retort oven plants have been erected at Rosita and at Las Esperanzas in the State of Coahuila. These have not by-product recovery equipment, but the gases are utilized in the power plant, each oven yielding 16 horse-power. A better grade of coke

is obtained and at the same time a higher yield of the coal is coke. At the close of 1908, there were 600 of this type of oven in operation, under construction, or contracted for in the United States. The ovens in the Connellsville and Lower Connellsville districts of Pennsylvania would, at the same rate as they get in Mexico, produce approximately 600,000 horse-power every day in the year. It is now wasted.

In coal mining, as in other lines of industry, the most effective conservation and economy can only be effected through the conducting of operations on a large scale. It is the large and not the small unit that is able to effect the greatest saving. The small coal mine is always the most wasteful, and it is only in the larger operations that the greatest efficiency and the maximum economy can be secured. The United States steel corporation, by the way, has erected at Joliet, Illinois, 280 retort ovens and contemplates increasing the number to 1,000. The Cambria Steel Company, at Johnstown, Pennsylvania, which was one of the pioneers in retort-oven construction in this country, having built 60 in 1895, has now nearly 400 in operation and I am of the opinion that most of the coke made by this company is made in by-product ovens.

The development of the coal resources of Alaska has been the subject of much discussion during recent months. Mr. Brooks has, in his latest progress report, shown how the Territory is suffering for the need of coal while its untold wealth in this regard lies undeveloped for want of legislation to permit it. It cannot be accomplished when the unit of operation is limited to 160 acres. It will require the investment of a large amount of capital and it must be recognized that the mining operations and the transportation interests shall not be antagonistic, for the one must depend upon the other. Millions of dollars will be needed, and in order to secure them the terms must be liberal, but there is no reason why the interests of the people might not be secure against monopolistic oppression. Is it wise conservation to allow these fields to lie undeveloped while West Virginia and Pennsylvania coals are brought to the Pacific coast at

a cost of half a ton of coal consumed in the transportation of each ton of coal carried?

The application of the principle of conservation to the coal lands still remaining in the possession of the government, or probably I should say in the possession of the people, has been chiefly through the work of the Land Classification Board of the Geological Survey in fixing just valuations on these lands. Formerly these lands were sold at \$10 or \$20 an acre, according to whether they were more than 15 miles from a railroad, or within that distance. Some of these lands are now sold at from \$200 to \$400 an acre and it has not retarded development. On the contrary the classification of such lands by the geological survey has to a large degree removed the doubt as to their value, reduced the hazard of investment and encouraged the securing of them for development, and it makes it unprofitable to acquire them for speculative purposes or to hold for monopolistic control of the future fuel supply.

In closing, I should like to say just one word of defense for this government which I have the honor to serve, and which is acting as a trustee for the public lands in the West. I do not think the members of this Congress realize that the Eastern brother and Northern brother and the Southern brother are not robbing the Western brother. All of the money that is obtained by Uncle Sam from the sale of public lands is turned into the Reclamation Fund. Fifty-one per cent of that goes back into reclamation work in the state in which the land was sold. All the other is divided among the other public land states, and the Eastern states do not get a cent of it. (Applause.) I can speak on this subject without prejudice. I have the honor to be a citizen of Texas, and Texas has no public lands. But I do think, in discussing this matter, that one item, one thought, ought to be held uppermost, and that is that Uncle Sam is not treating the public land states unfairly. (Applause.)

Mine Accident Investigations of the Bureau of Mines.

BY GEORGE S. RICE, BUREAU OF MINES, WASHINGTON, D. C.

While it is evident that there is a great diversity of opinion among American mining men as to the proper functions of the new Federal Bureau of Mines, on one point, at least, there appears to be general agreement, namely, that the investigation of accidents in coal mines, started under the jurisdiction of the Geological Survey should be continued, and a similar investigation should be made of accidents in metal mines.

A prominent English mining engineer, while speaking of accidents in metal mines, remarked that coal miners were fortunate in having disasters occur in their mines. This, at first, seems like a brutal statement, but when the matter is considered carefully, the meaning becomes clear, since in spite of the large number of men who have been killed and injured in the great colliery disasters that too frequently have appalled the world, the number of deaths and injuries from this cause have formed only a small part of the total number killed and injured in coal mining by other causes, particularly those due to falls of coal and rock.

In 1907, the year of the greatest series of American colliery disasters, Mr. E. W. Parker reports 947 men were killed and 347 injured in gas and dust explosions. During the same year in all the coal mines of this country, there were 1122 killed and 2141 injured from falls of roof or coal, and from all causes, the totals for that year were 3124 killed and 5316 injured. Therefore, less than one-third were killed and one-fifteenth were injured by explosions of the total number killed and injured in that year of greatest mine explosions.

In more normal years like 1908, during which 2450 were killed and 6772 injured, only one-sixth of the killed were lost in disasters and one-twentieth of the total were injured by explosions of gas and dust.

Nevertheless, as previously indicated, the horror produced by the explosions has caused attention to be directed to accidents in coal mines, and the precautions taken on this account have led to a general improvement in colliery conditions, and in all civilized mining countries except the United States the accident rate has been steadily decreasing.

In the United States the annual accident rate of coal mining nearly doubled in the 10 years from 1897 to 1907, when we attained the high annual death rate of 4.86 deaths per 1,000 employees. Fortunately, the year 1908 showed a reduction to 3.60 deaths per 1,000, and in 1909, the death rate was still further decreased; we can only hope it will continue to decrease. The present rate is most appalling when one considers it, in comparison with that of France or Belgium, where the annual mortality rates are but 1 per 1,000.

In view of the high accident rate in the collieries of this country, it might be questioned if the attention attracted by the disasters has led to much improvement of conditions. Undoubtedly there has been improvement, but it has not, until 1908, kept pace with increased dangers due to rapid development, and greater natural dangers arising from greater depth of working with consequent increase in flow of explosive gas and the increased use of black powder in lieu of pick work.

Metal Mining Accidents:

When attention is directed to metalliferous mining accidents, we are surprised to find that many of the states in which mining is done make no record of the deaths and injuries in metal mining, and the Federal government has hitherto made no attempt to gather such statistics. This strange lack of information cannot be because the metal mine operators as a rule are less interested in the welfare of their employees; there are many instances to show the contrary.

It is noticeable that the states that do not gather mine accident statistics are chiefly those in which there is no coal mining. Coal miners and operators, in going from the old established coal mining centers of the East and from Europe have carried with them their customs and systems of law

and regulations which include the recording of mine accidents.

Metalliferous miners in this country have largely formed their own precedents, and, probably due to the wide diversity of mining systems, in turn due to great differences in natural conditions, there has not been the same community of interests among metalliferous miners until more recently. Your committee on uniform mining laws and prevention of mine accidents, in its report to this congress, has clearly brought to attention the lack of metal mining statistics, except in certain states and those states have the best mining laws.

Mr. Frederick L. Hoffman, the well known statistician, has done valuable service to the metal mining industry in attempting to obtain, in spite of lack of official statistics, the fatality rates in different sections of the country. As his report, published in the *Engineering and Mining Journal* of March 5, 1910, has been re-published by the committee on uniform laws, I will not attempt to comment on it except to call attention to the fact that he finds the average rate is practically the same as in coal mining, despite the general acceptance that the natural conditions are less hazardous. His figures also show that there is a greater variation in different metal mining districts than in different coal mining districts, and that the accident rates in both are appallingly high as compared with those of European countries.

Attacking another phase of the conditions under which miners work, Mr. Hoffman in an article in the *Engineering and Mining Journal* of July 2, 1910, has commented upon the excess of sickness and ill health of miners as a class, compared with those who work in the open air.

Haldane & Thomas Paper on Miners' Diseases.

Messrs. J. S. Haldane and R. A. Thomas, in an article which appeared in the *Transactions of the Institution of Mining and Metallurgy*, volume 13, reached the following conclusions after a study of the health statistics of miners and others living in England, Wales and Cornwall:

"1. Apart from lung diseases and a slight excess of fatal accidents, (many of which are not underground) metalliferous mining in England is a very healthful occupation."

"2. After the age of 25, there is an extraordinary contrast as regards the death rate from lung diseases between colliers and iron-stone miners on the one hand and metalliferous miners on the other. Since 1892, the death rate from lung diseases has so increased that now the deaths due to lung diseases in the metalliferous mines are 8 to 10 times as great as that of colliers or iron-stone miners of the same age."

The authors further state:

"The variety of lung diseases which is chiefly responsible is returned as phthisis on the death certificate. Among older men deaths from bronchitis are in excess. * * * * * The following causes have been attributed in the past as wholly or in part the cause of miners' phthisis:"

"1. Absence of sunlight. This cause dismissed as having nothing to do with the disease."

"2. Exposure to high temperature and sudden variations in temperature. This cannot be an important cause as coal miners are similarly exposed."

"3. Gaseous impurities. Surprisingly little attention is given to the question of ventilating metal mines as compared with coal mines. Consequently, lung diseases in metal mines have been largely attributed to poor ventilation."

Messrs. Haldane and Thomas did not agree with the foregoing suggested causes as they found that the mines they examined in Cornwall were freer from gaseous impurities than the air of coal or iron-stone mines. They discussed three possible causes:

1. The stone dust produced.
2. The smoke produced by explosives.
3. Infectious bacteria.

They decided that infection by tubercular bacillus will not explain the facts relating to miners' phthisis. They considered that the smoke from explosives and candles was "probably inappreciable." The final conclusion of Messrs. Haldane and Thomas was that the inhalation of the stone dust was the cause of the lung disease which is common among the Cornish and other miners. They state that out of 142 men who had worked rock drills in the Cornwall district, 94 per cent died of lung diseases and the average age of death was 37 years, and of 178 men who did not work with rock drills, 65 per cent died of lung diseases, but the average at death was 50 years.

They, therefore, considered that the introduction of rock drills in Cornwall is responsible for the recent great increase in the mortality of Cornish miners between the ages of 25 and 50 years. They thought that there was no reason for believing that the dust produced its effects upon the lungs in any other way than mechanically by its hardness, sharpness and insolubility, as there seemed to be little difference in effect whether the dust was from quartz, granite, flint, gannister or hard sandstone.

In a discussion which followed the Haldane and Thomas paper, Dr. Oliver stated, "that miners' phthisis belonged to a group of diseases in which the spongy texture of the lungs became converted into a hard solid tissue."

Mr. R. J. Watkins, who had charge of a sampling mill, stated that when certain kinds of dust were sampled, men were knocked out often for many days, and that a certain sulphide ore of certain composition gave the most trouble.

South Africa:

Much attention has been paid in South Africa to the miners' phthisis, and in 1902 prizes were offered for "the three best practical suggestions and devices for obviating, minimizing or combating the causes leading to miners' phthisis." The advertisement offering these prizes stated that while no definite information was before the Commission, it was generally assumed that the cause of the disease

lay in the inhalation by the men of fine dust produced by rock drills.

Two hundred and twenty-nine competitors responded. Most of the suggestions were regarded as impracticable methods for wetting, through jets, the dust as made by the drill, and atomizers or sprinklers for laying the dust when made, received most attention, and some of the devices were regarded by the Commission as promising.

Gases from Blasts.

In addition to the menace of stone dust and despite the statements in the foregoing quotations, it is evident that in some mines and in some places, where there is no positive, or little ventilation, the breathing of gases from the combustion of explosives produces an unfortunate effect upon the men, which at times has been accumulative in its effects. We know from the work which has been done by Haldane and others the poisonous effects of minute quantities of carbon monoxide which is absorbed by the blood in lieu of oxygen, and if a man is continuously exposed he rapidly succumbs. This is the case when there is over .3 of 1 per cent in the atmosphere. Moreover, recovery of one partly poisoned is slow. It seems probable that when a man is regularly exposed to small quantities in the air, he may become in time more or less incapacitated.

With nearly all high or quick explosives on the market, carbon monoxide forms a large portion of the gases of combustion. From time to time we hear of men being overcome in the mines by such gases and in some instances even being killed, notably the case that occurred in the Gunnison tunnel in Colorado on January 16, 1910, when a shift of men while waiting for the smoke from a round of 50 holes to clear, were overcome and nine of them died, evidently due, according to the facts as reported, to monoxide poisoning.

Investigation of Mine Accidents by Bureau of Mines:

Under the terms of enactment of the Bureau of Mines, the investigation of coal mine accidents started under the

jurisdiction of the United States Geological Survey will be continued by the Bureau of Mines. This investigation consists of testing of explosives for use in gaseous or dusty mines, (those that pass being listed as "permissible explosives"); the investigation of safety lamps and of rescue apparatus of all kinds; the establishment of rescue stations for the education and training of miners in the use of rescue apparatus; the investigation of mine disasters by mining engineers, with a view of finding preventives; the study of the humidity of mine air in its effect upon the drying or moistening of coal dust; the collection and analysis of mine gases and study of their sources and changes of efflux from the strata; the study by electrical engineers of the different phases of mine installations with a view to lessening the dangers therefrom; and the collection by the mining engineers of samples of coal throughout the country, which while partly for governmental fuel supplies, is also of service in connection with mine accident work, through the relation of the coal to the production of dust and gas.

The foregoing work has in the past been carried on by a well equipped laboratory at Pittsburg, aided by a small field force of mining engineers. Much time has been occupied in purely educational work among the miners and foremen. It is proposed to continue all this work and possibly to enlarge slightly from time to time as funds may be provided by Congress, to better cover the widespread coal fields of the country.

Under the law establishing the Bureau of Mines, the scope of the work has been enlarged, and the investigation of mine accidents has been extended to cover both quarries and metalliferous mines. It is expected that mining engineers who have been already connected with the accident investigations, in coal mines, will extend their observations so far as possible to all kinds of mining and quarrying.

The appropriation for this year will allow but few additions to the force, but if the results justify, it is not improbable that Congress will provide for extension of the work in the future.

It is manifest that there is ample room to do good work

in the investigation of the metalliferous mine accidents, particularly in studying in the field the effects of stone dust and of gases arising from the discharge of explosives and, at the Pittsburg station, in the study of the explosives used in metal mining with a view to obtaining such explosives that the products of combustion will be less harmful to the health of the miners.

In another direction, in quarries and in metalliferous mines, the gathering of statistics of accidents by a federal bureau, working in conjunction with state bureaus, a work hitherto ably done by Mr. E. W. Parker for coal mine accidents, will be of great value, inasmuch as it will lead to precaution being taken to prevent many accidents, the causes of which are often overlooked. Unification of the methods of gathering such mine accident statistics will also be of value inasmuch as it will enable the intelligent comparison of similar kinds of accidents in different districts and countries and thus lead to betterment of conditions.

Besides this valuable feature there is another. It is the tendency of the times to look forward to a time when each industry will bear the load of caring for its killed and injured. Already a number of progressive mining companies have started insurance organizations, the cost of which is borne partly by the employees and partly by the companies. In any case, there can be little question that if an industry is in a thoroughly healthy condition, it should be able to bear the cost of caring for those injured in its business, and for the pensioning of needy widows and orphans, to greater or less extent. As a matter of common humanity, this proposition can hardly be disputed. If prevailing conditions prevent, it means that the price obtained for the product should be raised to meet these conditions. No doubt this movement must be gradual to not disarrange business affairs.

Accompanying this paper, there are forms giving suggested classifications of accidents in metal mines and coal mines. These classifications are not in any sense final, but are put forward for discussion. They follow to some extent the English system, though a little more elaborate. It is

only by close sub-division that analysis of the causes of accidents can be made satisfactorily.

In another matter the Bureau of Mines may be able to give valuable aid; namely, in promoting the unification of mining laws and regulations, such as those proposed by the several committees reporting to this Congress.

There are doubtless many problems in connection with mine accidents which are not mentioned in this paper, and of which members of the Bureau of Mines' staff will be glad to learn from the mining engineers of the country. While the question is complex it is worthy of our best efforts since it deals with the lessening of loss of life and limb.

Suggested Form for Tabulation of Non-Metallic Mine Accidents.

I. UNDERGROUND ACCIDENTS:

(a) EXPLOSIONS:

1. Coal dust.
2. Fire damp.
3. Coal dust or fire damp (cause undetermined).

(b) FALLS OF GROUND:

1. Fall of roof at face.
2. Fall of roof in drawing pillars.
3. Fall of coal at face.
4. Fall of roof in roadways.

(c) MISCELLANEOUS UNDERGROUND:

1. Explosives:
 - a. Handling loose explosives.
 - b. Thawing.
 - c. Premature firing.
 - d. Digging out misfires.
 - e. Flying pieces of rock or coal from shots.
2. Suffocation:
 - a. By natural gases.
 - b. By gases from fires.
 - c. By gases from blasts.
3. Irruptions from water.

4. Haulage:
 - a. Rope breaking.
 - b. Run over or crushed by cars or locomotive.
5. Electric shocks from:
 - a. Trolley wire,
 1. Below 300 volts.
 2. Above 300 volts.
 - b. Fixed power cable,
 1. Below 300 volts.
 2. Above 300 volts.
 - c. Switches.
 - d. Machines or trailing cables.
6. Man falling down:
 - a. Winze.
 - b. Chute
 - c. Stope.
 - d. Manway.
7. Drilling or mining machine accidents.
8. Miscellaneous.

II. SHAFT ACCIDENTS:

1. Overwinding.
2. Rope or connections breaking.
3. While ascending or descending on cage.
4. Falling into shaft.
5. By things falling into shaft.
6. Miscellaneous shaft accidents.

III. SURFACE ACCIDENTS:

1. Tipple or tower accidents.
2. Outside incline—plane or tramway.
3. Power house accidents.
 - a. Engine or boiler accidents.
4. Electric shocks.
5. Railroad accidents (incident to loading and switching).
6. Washery and coke oven accidents.

NOTE—It is proposed gathering the statistics for the number of accidents and number of men killed and injured by accidents, tabulating each of the three classes separately.

Suggested Form for Tabulation of Metal Mine Accidents.

I. UNDERGROUND ACCIDENTS:

(a) FALLS OF ROOF, WALL OR TIMBER:

1. Fall of roof or hanging wall in headings.
2. Fall of ore or wall in stope or winze.
3. Slippage or breakage of timbers.
4. Run of ore in chutes.

(b) MISCELLANEOUS UNDERGROUND:

1. Explosives:
 - a. Handling loose explosives.
 - b. Thawing.
 - c. Premature fires.
 - d. Digging out misfires.
 - e. Flying pieces from blast.
2. Suffocation:
 - a. By natural gases.
 - b. By gases from fires.
 - c. By gases from blasts.
3. Irruptions of water.
4. Haulage:
 - a. Breakage rope.
 - b. Run over or crushed by cars.
5. Electric shocks:
 - a. Trolley.
 1. Below 300 volts.
 2. Above 300 volts.
 - b. Power cable.
 1. Below 300 volts.
 2. Above 300 volts.
 - c. Switches.
 - d. Electric machines or pumps.
6. Man falling:
 - a. Down winze.
 - b. Down chute.
 - c. Down stope.
 - d. Down manway.
7. Drilling accidents (from machine or drills).
8. Miscellaneous.

II. SHAFT ACCIDENTS:

1. Overwinding.
2. Connections or ropes breaking.
3. While ascending or descending shaft by machinery.
4. Falling into shaft,
 - a. From surface.
 - b. From part way down.
5. By things falling down shaft,
 - a. From surface.
 - b. From part way down.
6. Miscellaneous shaft accidents.

III. SURFACE ACCIDENTS:

1. Head house accidents.
2. Outside tramway.
3. Power house accidents,
 - a. Boiler and engine.
 - b. Electric shocks.
4. Miscellaneous surface accidents.

NOTE—It is proposed gathering the statistics for the number of accidents and number of men killed and injured by accidents, tabulating each of the three classes separately.

Address of Professor S. B. Christy,

DEAN OF THE COLLEGE OF MINING, UNIVERSITY OF CALIFORNIA.

Mr. President, Ladies and Gentlemen, members of the American Mining Congress: I did not come here to make an address; I came here to listen and to learn in what way, if any, the University of California may be of help to the oil miners of California. I cannot but welcome this opportunity, however, of saying a few things that have long been in my mind.

In the first place, as a Californian, as a native born San Franciscan, I wish to say that we are all proud of Los Angeles. We are proud of the hearty reception that you have given the miners. We Californians are all used to California climate, and while perhaps you have a little more of it than we have up north, the one thing that I envy you for most is the spirit of loyal co-operation that this city has shown in everything you have undertaken. This spirit has enabled you to work the miracles you have already accomplished and will yet accomplish.

Californians, usually sons of pioneers, are individualists, each relying exclusively on himself, but they have not yet learned that in union there is strength. You have learned it in Los Angeles. I hope the gospel will spread north and south and east and west until it makes California what you have made of Los Angeles—an intensely loyal commonwealth.

In the next place, I wish to congratulate the American Mining Congress on the successful completion of one of the tasks they have had set before them for the last fifteen years. We set out to get a cabinet officer, to have the same recognition for mining that agriculture has always had. I remember some years ago presenting a set of resolutions at the Mining Congress at Salt Lake City, where we decided to stay with the fight, no matter what would happen, until we got a cabinet officer. We have made the first step toward

that accomplishment, and I feel sure that in the end we will succeed in having the recognition for the mining industry that has already been given to agriculture.

You have heard from this platform the words of Mr. Pinchot that the President of the United States in selecting Dr. Holmes had selected the one man most fitted for the task of heading this new bureau. I feel sure that after hearing him speak to-night you will join in that sentiment. A good many of us tried for a long time to convince President Taft of that fact. I remember meeting Dr. Holmes for the first time at the St. Louis Exposition, where he had charge of that magnificent mining exhibit. I was filled with admiration for the splendid way in which he improved opportunities—in which he created opportunities. He undertook there things which all his mining friends told him calmly were impossible, and he said, "I know it, but I am going to do it," and he did it; he accomplished the impossible. He is one of those men that you can not say no to. He is mild and gentle, never self-assertive, but he is persistent and he has a winning way that carries the point on every occasion, and I feel sure that we shall have in him a new influence to aid and strengthen the hands of the miner.

We have hitherto always had the support of the United States Geological Survey, and I want to here express myself as one of the hearty and whole-souled supporters of that great work.

In a conversation with Director Smith some time before this matter came up he assured me that the Geological Survey was a kind of incubator of original ideas of one sort and another. They had the department of ethnology, for instance, which was a favorite hobby of Major Powell, and which gradually developed to such an extent that it had to be turned over to the Smithsonian Institution. Then they had the Reclamation Service which grew on its hands to such an extent that it became difficult to administer it, and he said to me, "The technological bureau is growing in a similar manner, and for the purposes of effective organization and administration the time is near at hand when it

will be necessary to separate that also and put it under a new head." I look for these two bureaus to work hand in hand for the development of the mineral resources of our country, and I am sure that under the direction of Director Holmes there will be no reason for friction between these two great agencies.

I wish also to speak of another work along similar lines; that is, the work that the University of California is endeavoring to do in its School of Mines. I have always been a great believer in the practical man. I feel that we all owe untold debts of gratitude to the unknown men who have pioneered the way from the old stone age. Only a few months ago I had the pleasure, at the Bohemian Grove, of seeing a little play presented there to illustrate the development of the human race from that of the cave man; the poet and the musician selected as one of the chief incidents of their plot the asphaltum lake in your city where lie preserved the monsters of the pre-historic past. They had there the tooth of the saber-toothed tiger found in that lake, and they attempted to depict the growth of the human race from that of the cave man fighting with the unaided strength of his muscles against the brutes and the forces of nature. We do not realize when we use the hammer that somebody invented it once, made it out of a stone, and then out of copper, and then out of bronze, and then out of steel, and that at each step some unknown practical man has smoothed the way, has made some slight improvement that has made for civilization.

Perhaps no part of the civilized world shows a greater accomplishment for the practical man than the United States. We often hear about the American temperament; they say it is due to climate. It cannot be due to climate, however. We have every kind of climate, from the frigid to the torrid, in the United States. It is not due to climate. Down over the Mexican line every day is manana; up above the Canadian line every day seems to be like Sunday. What is the reason that all kinds of races are melted together in the melting pot of our common country and have created

what we call the American temperament? **It is the equality of opportunity.** It is the sense that what we do, what we accomplish, depends upon ourselves. This is the stimulant, acting day and night upon people of all races, which has made the American temperament, the temperament that never sleeps, that is always working, that never gives up, that sometimes wears a man to death and turns him into the scrap heap at thirty-five or forty, but which accomplishes things. There is no doubt in my mind that the accomplishment of the American miner is greater than that of any other miner in the world.

While this is true, it is also true that it has been accomplished at a terrible cost of life and capital. It is a by-word in America that we have little regard for human life. And that is true. We are too busy accomplishing other things to have much regard for human life; and it seems right here that there is room for a mining school as well as for the mining bureau which will help to conserve the powers of nature and to increase the powers of men by turning the attention of young men to the fact that if they work with the laws of nature they can accomplish much more than if they work against them. And that is what we are trying to do at the University of California. We are trying to make the young men realize what the forces of nature are; that there are no exceptions to the laws of nature; that there is no appeal to a higher court; that each decision is a final one; and that if a man fails to comply with the laws of nature he has to pay the price, and there is no escape. When a man realizes that, when he knows what the forces of nature are, he can learn to benefit himself and his race by applying them, and that is what we are trying to do in your mining school at the University of California.

We have gotten together in the faculty, we have weighed and measured each course of discipline, and we have simmered it all down to very simple things. There is, first, observation, and then there is reasoning upon the results of observation and the formation of some sort of a hypothesis or theory, and then there is a testing of that

theory by experiment. Those are the three fundamental operations which have lead man from the cave man to what he is today. Those are the only ways—observation, reflection, experiment. To make our students realize those forces and how to use them, that is what we are trying to do today. There are innumerable questions that come up in mining. One cannot teach a young man in detail how to solve them all—there are too many; but if he gets a clear working knowledge of the principles of mathematics, of physics, of chemistry, of geology and of mineralogy, and if he acquires some little knack of applying them to some simple problems he can be trusted to work his larger problems out, no matter what they may be; whether it be the amalgamation of gold ore in California or Nevada, or the thawing out of frozen gravel in the Klondike; whether it be cyanide gold or silver ores in Mexico, in South Africa or in Korea, as some of our boys are now doing; whether it be the discovery of oil, the working of oil deposits, the discovery of new uses for oil, of greater possibilities in utilizing its products—their mastery is all founded on these simple fundamental principles.

It is in carrying out those ideas that we are trying to help the State. Some of our professors have been very much interested in these deposits in the asphalt beds; they have made some very remarkable discoveries in those beds. They no doubt contain other fossil remains which are not yet known. Our geological professors are working away at some of the problems of the oil fields. Our chemistry professors are trying to study out new ways of refining and purifying oils, or perhaps making new products from them that will be useful, and we are trying in every way we can to train a lot of self-respecting, hard-working young fellows to go into the field, to put on the overalls and the jumper and do their part like men. When the boys come to me for their summer school experience wishing to have a letter of recommendation saying they are students from the University, I always tell them, "Say nothing about being a University man, but put on your old clothes and tell

the foreman you are looking for a job, and if you are any good you will succeed, if not you will be fired, then go to another place and do better next time;" and that has been, I think, the turning point in the development of our Mining School, that the men have been encouraged to put themselves on their merits as men. If they are not manly men it is just as well to find it out early, so that they may go to selling tape or into some other occupation of a more lady-like nature; but when they have gone out and measured themselves up against real, live men they always come back to college with a new zest, a new enthusiasm for their work; and since we have done that the graduates of our college have begun to hold their own wherever they have gone on the face of the globe—and I can say that without boasting, for their records speak for themselves.

I also wish to make a reference to that generous lady, that noble woman, who has done so much for education in California. I refer to Mrs. Phoebe A. Hearst. The mining industry is peculiarly indebted to her. Her gift of the Hearst Memorial Mining Building to the University of California as a memorial to her husband, Senator Hearst, a gift which has already cost over seven hundred thousand dollars, has given to the state of California the most beautiful, the most modern and the most efficient mining building in the world. I say this without exaggeration, after having seen them all.

I feel that I owe it to the University to call the attention of this Congress and particularly of the citizens of Los Angeles, who are known to be liberal, generous-minded people, to some of the needs of the University of California. The mining department has been generously provided for, but we need a large number of other gifts in the way of buildings and endowments; and among other things is one which is very dear to my heart, and which I should like to see someone of you take it into his head to do, and that is to give to your State University a building devoted to Geology and Mineralogy. We have at the present time at the University a building known as South Hall, one of the first

gifts of the state, a fine brick building, in which is housed the department of geology, mineralogy and physics; but the department of geology has not room enough to turn around in. Their specimens are crowded in such a way that they cannot be exhibited, and this department, which comes nearer in its sympathies and uses and aims to the mining industry than any other, is sadly crippled. Most of the students in that department are mining students, and we are crippled at the present time for lack of means to exhibit and to display the material we now have,, and I wish some public spirited citizen of this community would take it into his heart to give us a fine building for the Department of Geology and Mineralogy. We need a building like California Hall, that cost two hundred and fifty thousand dollars. Why can not the people of Los Angeles give us such a building to be known as "Los Angeles Hall," to be devoted to the study of the geology of California? Is there no man, no group of men in Los Angeles who will do for your University one fourth as much as has been done for it by a single woman?

In conclusion let me say that the mining course at the University, like that of all the other engineering courses, is not an easy one. It reminds me of when I was a student at the University in President Gilman's time he used to tell a story of a lady who wished her son to study civil engineering. She said: "President Gilman, I am very anxious to have my son become a civil engineer, but he hates mathematics; now can't you get up a course in civil engineering for my boy with the mathematics left out?" Now there are a good many boys of that kind and if you find a boy who does not like mathematics, who does not like hard work, mental and physical, who does not like a little spice of danger now and then, don't send him to Berkeley to study mining engineering, or any other kind of engineering for that matter. But if you have a young man to whom mathematics comes naturally, who has a love of roughing it, of coming face to face and heart to heart with nature, it is a good thing to send him there and to give him

an opportunity to utilize and develop all there is in him. Do not force him to go there if he does not wish to. I feel heart-broken sometimes when I see young men come to the University, not because they wanted to come but because their fathers sent them there. I have seen such young men throw away their opportunities and waste their time and money, because their fathers too generously denied themselves to give their sons opportunities which they did not have themselves and which their sons did not appreciate. In all such cases the only thing for the father to do is to take his son out of college and put him at hard work, because, after all, earnest work is the only thing that makes men out of boys.

I am glad, however, to be able to state that the great majority of the young men who come to the University to study mining are an earnest, able and capable body, who would be a credit to any state. Most of them have had a hard struggle to get their education. They never miss an opportunity to improve themselves and wherever they go on the face of the earth they may be trusted to do credit to California.

I wish to remind you that the University is always ready to be of service to the mining industry; that the Hearst Memorial Mining Building stands a perpetual monument to the courage, perseverance and creative imagination of the mining pioneers who rescued our western states from barbarism, and I wish that all members of the American Mining Congress who visit the University of California at Berkeley will remember that to them the latch-string always hangs out at the door.

Hints To Ore Shippers.

BY S. E. BRETHERTON, SAN FRANCISCO, CALIF.

Having been honored by being placed on the committee of "Smelter Rates," I will endeavor to say something interesting on the subject. As I am no longer interested in custom smelters, that is, smelters depending on the ore they purchase from different mines to keep their furnaces going, my statements can be considered impartial if not unbiased.

Should I attempt to describe in detail each branch of the Smelting industry that has any bearing on Smelter Rates, too much of your time would be taken up and the subject become tiresome.

Until within the last few years I was connected with Custom Lead and Copper Smelters,—altogether more than twenty-five years, acting as General Superintendent and Metallurgist, a great portion of the time in charge of mining properties, shipping to the same or other smelters, which gave me a chance to view the situation from both sides. Mistakes would occur for or against either side, but these mistakes were mostly clerical; in fact, I don't remember of any firm with whom I have been associated attempting to interfere with or cause improper returns to be made. No doubt there has been crooked work at some of the smelters and Customs Sampling Works, but this was an exception to the rule.

The Custom Smelters do not have to resort to improper methods if they know their business. It is to be expected that they take the benefit of a doubt in their own favor, the same as in any line of business which the miner does not find fault with, if the practice is not carried to excess. It is sometimes difficult to get those who are making their first shipments and who have not been previously posted to understand the reasons for penalizing the different so-called refractory elements in the ore, such penalties being added to the regular treatment charge.

Part of the smelting business is in knowing how to get the proper ores so that the Metallurgist can make suitable mixtures and reduce the amount of flux to be purchased as much as possible, as every pound of barren flux which has to be smelted displaces that much ore on which the Smelting Company would get paid for treatment. Smelter rates are published quite frequently in the different technical journals. Some of the profits are made by mixing the excess zinc, Barium or Silica and Alumina of one shipper's ore with the clean ore sent in by some other shipper. Part of this benefit of mixing, the miners had been receiving several years before I left Leadville and will be referred to later.

Taking moisture samples, although apparently simple is one of the most difficult problems to solve, that is, to arrive at any definite conclusion of accuracy. To ship and crush a lot of ore before taking the moisture sample would be allowing a lot of moisture to escape before the sample was taken. To weigh up a lot of lumps in the moisture sample would be wrong, as the moisture they contain would not be dried out at the temperature used, that is, the water-bath which is used for drying out the moisture samples, so for convenience and safety the boy taking moisture samples usually selects more than the average of the fine, taking about fifty ounces from the freshly exposed parts of the ore pile as soon as possible after the lot has been weighed. The sample is immediately weighed, and dried for about twenty-four hours, the loss in weight being considered as moisture.

To satisfy the Mine Representative, on several occasions we checked the method by drying several entire wagon loads for a week on steel plates over the roasters with slightly higher results than the daily averages.

Several times when purchasing copper ore from experienced men in other lines of business, it took some time to explain that after deducting the weight of the moisture from the ore before settling, (the ore represented by the weight paid for should be equally as dry as the sample pulp on which the values are determined), the one and 3-10 per cent copper had to be deducted from the wet copper assay, as reported on the assay certificate and that one and 3-10 per cent

was deducted from the copper assay when we sold our mattes to the refinery.

There are exceptions to the rule when the coarse ore contains the most moisture, when of a porous or spongy nature, especially when containing manganese.

Passing on from the question of toll in the moisture samples, as some writers on the subject call it, comes the question of accuracy in taking the regular sample to determine the values to be paid for. Some parties prefer hand-sampling, while others prefer automatic sampling. When the ore is sampled by hand, that is, a certain percentage thrown out for samples as the workmen remove the ore after crushing to a suitable size, not too small for smelting, the men are supposed to throw out an average, but are often careless and need constant watching. This method of sampling is expensive. I like to have the mine representative on hand, if he will constantly watch the lot being sampled as it is a protection to the buyer as well as the seller. On the other hand, most automatic samplers are only suited for sampling accurately concentrates, or ore, after it is crushed finer than is necessary, or suitable for smelting in blast furnaces, as explained in my article on automatic samplers in the Mining & Scientific Press of November 28th, 1903.

With all the chances there are for making mistakes in estimating the value of ore, it is remarkable how accurately the values are determined and how closely the different sampling works that follow out correct principles will check each other. I have shipped rich ore, concentrates, and copper mattes sometimes containing thirty ounces of gold per ton, to the smelters at Pueblo, San Francisco, New York and Salt Lake City, always sampling and assaying before shipping, and it was seldom that we had to ask for a re-sample. Quite often we would call for a re-assay, as some of our contracts would not allow for a settlement unless the assayers agreed within a difference of \$1.25 per ton in the combined average differences of the metal values. When preparing the sample pulp for assay from ore containing metallic gold and silver, the shipper often thinks he is defrauded out of metallics caught on the screen, when quite likely, he is not,

for it is surprising how the metallics will grind up and work through the seive with the pulp; but where there is any doubt, all particles remaining on the screen should have lead added, be cupeled and the results, if any, added to the regular assay in proportion. All this has some bearing on "Smelter Rates," as it is often thought by the public that part of the smelter profits are derived from such sources, which is quite true, but not to the extent generally supposed.

The question of salting has also to be considered, the risk being nearly all against the ore purchaser and in favor of the ore seller. It would not be a difficult task for the shipper, or his representative, if he is given a chance to drop, say one per cent of gold or silver salt into the few ounces of the sample pulp near the end of its preparation (1 per cent equals a fraction over 291 oz. per ton, or only 1-10 of a per cent would equal 29.16 oz. equal in value to \$583 per ton, if gold were added). It would be impossible to decrease the values in the same way by adding anything.

There is another danger of salting, especially where automatic samplers are used, of the ordinary type, by the small rich lots of ore salting the samples from large lots. Large portions, and perhaps all of a small rich lot of ore is crushed and rolled fine and treated all the way through as a sample.

The metallics, tellurides, chlorides, etc., of silver and gold will gather in the crevice by being ground in and sticking to the machinery and seldom thoroughly removed by cleaning before perhaps the same machinery is used to finish a sample representing one-twentieth of a lot of several hundred tons and at one-twentieth the value per ton.

A salting of only fifty cents per ton of the large lot sample would mean a heavy loss. This is one of the objections to handling small lots; another is that the labor and expense of sampling and assaying a small lot of ore is nearly as great as though the sample represented several hundred tons.

Experience teaches us that the loss in gold is much greater when smelting rich gold ore than when smelting ore containing very little gold. In fact, there is often more gold

recovered when smelting ore containing low gold values than is accounted for by the assayers.

In the usual schedule of Smelter Rates a lower price per ounce is offered for gold in low grade ore than in high grade.

The only reason I can give for this is that there is less gold to make a profit on than in the richer ore.

The Western Smelter does not get all this profit. They usually pay from \$18 to \$20 per ounce, and sell for from \$19 to \$20 per ounce when marketing copper mattes, but get more for both gold and silver when marketing it in lead bullion.

There are good reasons for this: the loss in gold being so much greater when refining copper mattes than when refining bullion, the refiners have to buy accordingly.

The metallurgical loss in silver is much greater than in gold, the Lead Custom Smelters with good practice make considerable on the gold and silver, but the Custom Copper Smelter, bidding for silver ore in competition with the lead smelter, suffers a loss. It is the custom to pay for 95 per cent of the silver contents at New York quotations, re-sell the same silver in copper matte less 5 per cent, which leaves the metallurgical loss (anywhere from 2 to 5 per cent) an actual loss against the treatment charged.

With copper there is a considerable gain in a metallurgical way with a Custom Smelter, as the custom is to deduct 1 3-10 per cent off the wet assay, the actual copper contents.

Now, suppose the ore purchased contained an average of 2 6-10 of copper, the smelter would deduct the 1 3-10, equal to 50 per cent in this case, whereas, the actual loss should not be greater than five or six per cent.

On lead, like silver, the metallurgical loss is much greater than with either copper or gold, which accounts for the smelting company not paying for more than 90 per cent of the lead, dry assay. (The dry assay for lead is either made by the regular fire assay or 2 per cent is deducted from the wet assay.) For convenience, where the ore is not too refractory, lead assays are made by the fire method.

After considering the losses and gains on the metals to be marketed, such as gold, silver, copper and lead, which have some bearing on smelter rates, we must take into account the elements which enter into the cost of smelting such as manganese, iron, lime magnesia, on the credit side, and zinc, sulphur, silica, alumina and barium and arsenic on the debit side.

At some of the copper smelters, in Shasta county, California, silica is placed on the credit side, due to the fact that their copper ore contains very little silica and a very large excess of iron, so that the smelting companies have to make rates to suit local conditions.

The shipper, when sending in a lot of silicious ore, at, say \$5.00 treatment per ton, neutral basis rate, is very much disappointed if he is not posted, when it comes to final settlement, for if the ore contains, say 75 per cent silica, 13 per cent alumina, and 2 per cent of iron, the alumina should be added with the silica, making 88 per cent insoluble.

(The metallurgist may call for a fused silica later, for his guide in figuring ore mixtures as the insoluble deducted by the smelters as silica may contain alumina and sulphate or barium "heavy spar" more objectionable than the silica which he has to figure in his calculation on a different basis.)

Crediting 2 per cent of iron, leaves 86 per cent of silica to be penalized, at, say, ten cents per unit, amounting to \$8.60 per ton to be added to the treatment, total \$13.60 per ton treatment. Such penalty creates a hardship on the shipper of silicious ore, yet, on the other hand, if the same man sends in a lot of ore containing, say 10 per cent silica and 60 per cent iron, the excess iron over silica is 50 per cent, at 10 cents, amounts to \$5.00, which credit deducted from his neutral rate of \$5.00 leaves no smelting charge.

This is a high premium for the iron; but supposing they have to purchase barren iron ore for flux, containing 64 per cent of iron and 4 per cent of silica. In practice, it requires approximately 2 per cent of iron, or its equivalent, to 1 per cent silica, the actual excess of iron would be only 56 per cent equal to 28 per cent silica, in regular lead

smelting practice. The smelter gets \$2.80 from the 28 per cent of silica penalty, whereas 64 per cent iron ore usually costs double that amount. This helps to explain why there have been so many Smelting Company failures. The copper metallurgist has the advantage in being able to make a more silicious slag, 1 per cent iron being equal approximately to 1 per cent of silica, but if it is a small plant and the matte shipped out, instead of being converted locally to metallic copper, this advantage is mostly lost by the iron shipped out in the matte.

It is difficult, in fact, almost impossible, to take the time to explain all of these give and take points to the shipper.

Now, comes the question of the penalties on sulphur or zinc. Barium is weighed with the silica usually as insoluble. Too much zinc causes trouble in three ways; first, by volatilization carrying off silver with it; second, by helping to form incrustations on the walls of the furnace, and last, but not least of the troubles, making a viscous slag. By mixing the ore containing too much zinc with enough clean ore this trouble is avoided; but why should the shipper of ore containing excess of zinc, get the benefit of this mixing any more than the shipper of silicious ore should get the benefit of ore containing excess iron shipped by some one else, or the benefit of the mixtures made at the smelters by experienced metallurgist where they have to hold large stocks of ore tying up much capital on which interest has to be paid, until such time as they can secure other ore to make suitable mixtures.

Even in a mining district like Leadville, Colorado, it was necessary to carry a large ore supply, the average character of the ore some times changing in a few months from an excess silica to an excess iron.

Then we had to have silicious ore shipped in from the southern end of the State. For years it was a case of "dog eats dog" with the smelters, each one expecting the other to close down and quit the business first. The close competition among the Colorado smelters for ore was a great

benefit to the miner, but a serious matter to themselves. This unhealthy state of affairs could not last and the fight meant the survival of the strongest until there was left in Leadville only two lead smelters running the fall of 1893 from the thirteen in and around Leadville in 1879.

It was a wise move on the part of the conflicting smelting interests in the West when they agreed to combine into practically one company. It not only did away with competition; it did away with the greater part of the fixed expenses, such as superintendents, metallurgist, ore buyer, engineer, etc., and reduced the management to a few of those who had the most ability combined with personal influence.

The smelting combination thus formed enabled them to increase the smelting charges to the shipper, but not as much as one would expect nor was it necessary.

The advantages gained by only having to operate a few plants to treat the same amount of ore, the exchange of ore between the different plants to get suitable smelting mixtures, improving and operating only those plants which could treat the ore to the best advantage, etc., are so great that the smelting combine can give the miners much lower rates than too many independent smelters could and still make good interest on the value of all the plants, both idle and operating that went into the combine.

I do not wish any one to infer that I am defending any smelter trust. On the contrary, it fell to my lot to be next to the head and part of the time at the head of smelting companies that had to compete with the organizers of the so-called smelter trust, and the trust itself for years.

Reasonable competition is necessary in all classes of business. There is a limited field for smaller smelting enterprises where they are protected by very long railroad hauls or a distance from the railroad, especially if they adopt high concentration and ship out rich products.

There is one branch of the business the public does not appreciate to its full extent. That is the change in the value of metals. One would naturally suppose that if the prices go down and then up again, the averages would protect the purchaser, but such is not the case. High prices mean a

greater number of mines producing and much larger ore stocks being carried on which to lose than is carried in stock with low prices and small production.

I remember at the American Smelting Works, Leadville, Colorado, in 1893, we had about the largest stock of ore on hand we ever carried. When silver took its remarkable drop in price, the price of lead also dropped in sympathy. Those who are in the Custom Copper Smelting business had a similar experience in 1907.

If the smelters and refiners could be assured of a staple price for metals, even if that price was low, they could afford to make the treatment charges much lower. Under ordinary conditions there is a profit made on all the metals treated in addition to the regular deductions for treatment. There is also a profit on the penalties charged for sulphur and arsenic, not so much in lead smelting as in copper smelting; in fact, in some cases, one of the most serious troubles is lack of sulphur to save fuel and make matte in the copper matting furnace. There is no advantage in having arsenic in the ore under any circumstances, but with copper smelting the penalty is usually too high. Several years ago a friend of mine wrote me that the smelters were deducting about \$6 per ton for arsenic penalty and adding that much to the regular treatment of his copper ore. I explained to him by letter why they should not make such a charge. Afterwards he wrote me that my letter enabled him to have the penalty on arsenic removed. Often the ore shippers themselves are to blame; they may not know all the points in connection with making a contract for ore settlements; they are expecting to be cheated and perhaps demand a higher price for some metal their ore contains than they are entitled to. If the shrewd ore purchaser allows it, he catches the seller one better on something else.

“What the mining and smelting industry need is more uniform prices for the metals. This can only be obtained by the **Government taking the matter in hand** and publishing monthly a statement of total stocks on hand held by every one. This would

prevent the large producers from either underestimating or overestimating their stocks to upset the market in order to create unnatural prices for their own benefit. The question of smelter rates must be settled between the seller and buyer."

The adjustment of penalties charged by the different smelters and prices paid for the metals should also be left for the present to be settled between the miners or their representatives and smelters themselves. Each locality is different and requires different rates. No doubt it would be to the advantage of the miners of each district to combine and employ a competent party to make contracts and settlements for them. A saving of say only \$1.00 per ton would be worth considering. The smelter companies would rather deal with a few who understand their business than a greater number who do not.

Iron Ores of the Southwest.

BY C. COLCOCK JONES, LOS ANGELES, CALIF.

It has long been known that in California and more especially in Southern California there were large and commercially valuable iron ore deposits, which, considered in connection with other known large deposits in the adjoining States of Nevada and Arizona, and in lower California and Mexico afforded a source of supply for one or more steel and iron plants large enough to supply local Pacific coast demands, provided there was a solution of the fuel problem, and the growth of population and other economic questions justified the large investment of capital.

It is my purpose to show briefly in this paper that ample tonnage has been actually developed along the lines of the several railroads radiating from Los Angeles, which can be delivered at tidewater at a reasonable freight rate, that the enormous tonnages known to exist in Lower California are tributary to this port and that as a center of several oil fields cheap fuel oil is assured. The stumbling block up to the present time has been the absence of a local supply of coal and coke and prohibitive price of the imported article, but the importance of the fuel question dwindles in the light of recent advances in iron smelting.

A word as to the geology of the ores in order to bear out certain assertions to be made hereafter; geologically the ores of the Mojave and Colorado desert regions and of lower California belong to a well recognized type of igneous contact ores which are best described by quoting from recent bulletins of the United States Geological Survey. Mr. Charles K. Leith in his report on the iron ores of Southern Utah, Bulletin No. 338 says:

“It early became apparent to me as it has been apparent to others, that the iron deposits of the West are prevailing of a distinct and uniform type—an irregular replacement of limestone near

the contact with igneous rock, or a vein filling in both limestone and igneous rock—a type fundamentally different from that of the important producing districts east of the Mississippi river and probably of different origin.”

Also, from Bulletin 394 on Iron Ores of the United States by C. W. Hayes:

“This group of igneous contact ores is based exclusively upon its geological relations, and the deposits are widely distributed, though the most of them are located in the Rocky Mountains and Pacific states. The essential characteristics are steeply dipping lens-shaped bodies which closely follow the contact of an intrusive igneous mass and an intruded limestone. They occur partly within an igneous rock as dike-like veins and partly within the limestone as replacements, but generally at the immediate contact. The limestone is always altered for a variable distance, sometimes several hundred feet from the contact.”

“These ores appear to be due to ascending heated waters and vapors given off by the cooling igneous rocks. The ores include both magnetite and hematite.”

Work on my own ore bodies and examinations of many other iron deposits of this region confirm the essential characteristics so concisely stated in the foregoing extracts.

This particular form of ore occurrence has resulted in much greater surface exposures than are found in the Lake Superior iron regions, and in places where erosive action has been favorable faces of ore are shown in intersecting gulches several hundred feet in height and of as great or greater width.

Under such conditions the calculation of a definite tonnage is greatly simplified and the cost of mining, or rather in many instances simple quarrying, is reduced to its lowest terms.

Throughout the desert regions of California and Western Nevada and Arizona, the intrusion of limestone beds by igneous rocks is one of the most common conditions and there is scarcely a desert range of this nature that does not show some ledges of iron or float ore and I venture the assertion that when industrial conditions and the demands justify it, systematic prospecting and mining will uncover as great bodies of ore with like tonnages as have been already exposed through the accidents of erosion.

For many years large deposits of iron ore were known to exist in San Bernardino and Riverside Counties but until the building of the Salt Lake Railway and the Tonopah and Tidewater railway all of them were too far from transportation to receive serious attention. These deposits are capable of being connected with the main lines of the Southern Pacific, the Santa Fe, the Salt Lake, or the Tonopah and Tidewater railroads by branch lines of from 1 to 50 miles in length.

Within the past few years a number of the known deposits have been patented, and a large part of the tonnage is now owned or controlled by strong interests identified with transportation or manufacturing, which only await the successful outcome of certain experiments to actually engage in iron smelting.

These ore bodies have been purchased or taken up with an eye to that time in the future when the economic conditions and growth of population will render the establishment of an iron or steel plant feasible, granting that the fuel question can be satisfactorily solved.

The various deposits lie within limits of from 150 to 300 miles of the port of Los Angeles, or at a reasonable western freight rate, in the inception of the business, of five mills per ton per mile for main line traffic, they come within the freight limits of \$.75 to \$1.50 per ton. Adding to which the cost of branch lines, mining costs and a fair profit these ores can be landed at Los Angeles at not to exceed \$3.50 to \$4.00 per ton, and I have had offers for like ores from Lower California for this same price on dock at Los Angeles.

When it is realized that these ores run from 4 per cent to 10 per cent higher than the base ore of Lake Superior in metallic content, that is, from 60 per cent to 66 per cent iron and carry practically no moisture to pay freight on, the low price of \$3.50 to \$4.00 per ton at San Pedro counteracts in a measure the higher price of fuel.

The two principal owners of iron ore in Southern California are, first, the Union Oil Company through its subsidiary iron and steel manufacturing branch, the California Industrial Company; and second, strong interests said to be allied with the Southern Pacific R. R. and operating under the name of the Iron Chief Company.

The former of these companies has for many years been systematically acquiring iron properties in Southern and Lower California until I am informed its aggregate proven tonnage now amounts to 300 million tons, about one-third of which is in California and two-thirds in Lower California, and for several years past this company has been experimenting with fuel oil and gaseous fuel for smelting, preparing for the time when conditions shall reach a stage to render the smelting of iron profitable in Southern California.

The Eagle Mountain mines in Riverside County forty-five miles northeast of Mecca, a station on the Southern Pacific railroad, 141 miles east of Los Angeles, contain probably the largest known deposit of iron ore in California with the possible exception of the Minaret deposits in Madera County. In 1908 and 1909 these deposits which had originally been patented by the Colorado Fuel & Iron Company and several individuals, were acquired by the Iron Chief Mining Company. The deposit conforms to the type heretofore described, and is physically so situated as to definitely show 30 million tons of proven ore capable of being cheaply mined, the average analysis of which is 64 per cent iron with phosphorous in the bessemer limit.

There are a number of smaller deposits known in Riverside County of which the tonnage is a matter of conjecture but with the establishment of an iron plant at Tidewater, it is just these smaller deposits held by individuals that

would go far towards developing a tonnage and opening deposits not now known, providing the usual economic policy were pursued of buying ores from various sources for a furnace mixture.

The only other deposit in California approximating in size the Eagle Mountain deposit is the Minarets in the high Sierras of Madera County. At present, this is almost inaccessible, but a branch railroad of eighty miles would make it equally available to San Francisco bay or Southern California.

On the Santa Fe railroad the California Industrial Company own large deposits 14 miles south of Newberry and 162 miles east of Los Angeles and there are other known deposits north of this railway.

On the Salt Lake railroad the Iron Chief interests have acquired the mines one mile north of Scott's siding, 190 miles east of Los Angeles, primarily as a soft ore for mixture with the Eagle Mountain ores. A large amount of development work has been done and an actual tonnage of 10 million tons blocked out with conservatively estimated, three times that amount as the total resources of the property.

Within a few miles of this deposit are other large iron outcrops.

On this same railroad nine miles south of Kelso and 236 miles east of Los Angeles in the Providence Mountains I have proved up a body of 5 million tons of soft hematite ore, bessemer quality, capable of being quarried and loaded with steam shovels at a nominal cost and the property will produce three times that tonnage at a moderate depth. This occurrence is one illustration of the large exposed out-crops so prevalent with these Pacific coast ores. There is a quarrying face of absolutely clean ore of a 64 per cent grade 350 feet wide and 250 feet high extending for a length of 800 feet.

On the Tonopah & Tidewater railway 230 miles east of Los Angeles and 12 miles west of Silver Lake station the Colorado Fuel & Iron Company own one of the most extensive deposits in the state showing over ten million tons

of exposed ore capable of being quarried and loaded with steam shovels.

There are tributary to all of the railroads mentioned, various other deposits of known merit but enough has been said to indicate that contrary to certain popular notions the iron ores of Southern California are not controlled by any one set of men and as soon as conditions are ripe and the capital can be secured, a smelting industry will be established.

After carefully considering all the data based on my own observations and upon the figures supplied me relating to the tonnage of the two larger interests and others, my conclusion is that conservatively estimated, there are 200,000,000 tons of available ore and double that amount of probable ore in Southern California and of this tonnage about three-fifths is owned and controlled by the combined Iron Chief and Union Oil Company interests, the other two-fifths being divided among a number of individual holders.

In addition to this at the lowest estimate an equal amount can be counted on from Lower California which will naturally seek an outlet to the northward, and the ownership of which by various individuals and corporations precluded more than any other factor the monopoly of the iron ores of this district by interests adverse to their utilization, on account of cheap water transportation.

Several years ago an eminent Swedish geologist undertook to classify the world's supply of iron ore and his general deduction as to America was so pessimistic and out of keeping with the known facts that a more accurate estimate was undertaken by C. W. Hayes of the United States Geological Survey in 1909 in which he credits the Pacific slope, combining Washington, Oregon and California with total available supplies of iron ore 68,950,000 tons and not available 23,905,000 tons. In the course of time it is to be expected that the survey will get the actual facts and that California will receive credit for something like the conservative estimate I have given.

Up to very recently the smelting of iron ore has depended entirely on an available supply of cheap coke, a fact

which to the present time has prevented the development of the smelting industry on the Pacific coast, but within the past year the Noble Electric Steel Company of San Francisco has solved, at its plant in Shasta County, more perfectly than has previously been done in the world the problem of making commercial pig iron with the electric furnace.

In the case of this plant the close association of the iron ore bodies, the water power for the production of electricity and forests for the manufacture of charcoal has perhaps given an ideal condition, but so far as Southern California is concerned, the enormous recent development of fuel oil renders it practicable, when consideration is taken of a valuable by-product in the form of coke both for use in the electric plant and the manufacture of electrodes, to effect an equalization between the cost of production of electricity by water power with costly transmission lines, and from a compact plant producing the necessary power by the use of fuel oil either by steam or through the gas engine.

Los Angeles also has the added advantage that if from the development of large amounts of electricity in the building of the aqueduct there is any surplus for sale it can be more profitably utilized for the benefit of the community in general in such an industry as iron smelting than otherwise, providing it can be sold at a price low enough to warrant its use.

My own investigations have been along the lines of a combination method making a preliminary reduction of the ore by means of fuel oil or gaseous fuel and finishing up the operation in the electric furnace. The development of such a process promises more for the utilization of California ores than any other for it is problematical if the coal or coke from the Washington or Alaska fields could be delivered at a sufficiently cheap price to warrant their use in smelting operations in Southern California.

As the matter now stands, there is ample tonnage to justify the establishment of a plant in Los Angeles of a size in the beginning commensurate to the local demand. As for the moderate amount of solid fuel needed, a high grade coke

can be made by Prof. Lowe's method from the refuse now going to waste in gas plants or that would be produced in making electricity on a large scale through gas engines as a motive power.

Pig iron is worth today on the Pacific coast from \$23.00 to \$25.00 per ton, and we have the anomaly of importations of pig iron from China in competition with iron from the Eastern United States.

The most ambitious project on the coast today is the plant of the Western Steel corporation now building on Puget Sound, near Seattle. This company, to obtain a certain amount of pig iron from China, also contracts to use a large amount of Chinese iron ore, which to owners of iron ore in Southern California is conservation with a vengeance, for with any kind of interest on the part of the railroads in making extensions and furnishing dock facilities, this tonnage could be shipped from Southern California on a sufficient margin of profit. The preferable plan, of course, would be to supply our own needs in pig iron first, utilizing our ore at home. There is at present, a market for 100 tons of pig iron per day in this vicinity and a trade in steel castings from electric steel could be built up to large and profitable proportions, without going into the manufacture of the heavier shapes and rails in the beginning.

Using fuel oil for the production of power, pig iron should be produced here electrically at from \$16.00 to \$18.00 per ton, and I am in hopes that in the very near future the needed capital can be so thoroughly shown the opening and profit in the business as to be forthcoming.

In conclusion, a very few words on the question of conservation.

It has been suggested that among our other mineral products iron ore needs conserving for future generations. This I take to be the most extreme of all ideas in connection with this question. If there is any one product of the earth which, when extracted from its ore becomes an absolute asset in the world in a finished state, it is that of iron.

The proper policy to pursue with regard to iron particularly as far as we Americans are concerned, is to manu-

facture all we can, as fast as we can and as long as we can, supplying all our needs and the needs of the rest of the world so far as possible. This accomplishes not only the object of putting this metal in permanent form to be used and reused in commerce with but a small fraction of a loss annually, but should such an unlooked for thing as the exhaustion of our own iron deposits take place, we are even then in the best position in having all of the equipment for cheaply manufacturing iron ores brought from all other parts of the world.

I doubt if many men in this audience know of or remember one of the first acts that was done in good faith by the United States Government for the benefit of posterity. I speak of the time when our Clipper ships and ships of the line, all wooden bottomed vesesls, were the pride of the nation and envy of the world. In order that there might be no shortage for Naval purposes, the government set aside, removed from entry and reserved for future needs, large forests of the finest live oak known, and stored up in this form and in the Navy yards the pick of oak timber.

It seems almost laughable in view of the progress of the world, and no doubt many things now advocated in the name of conservation will seem as absurd to future generations as this live oak conservation, to preserve the supremacy of our navy and merchant marine.

The Elimination of the Mining Faker.

BY LEWIS E. AUBURY, STATE MINERALOGIST,
SAN FRANCISCO, CALIF.

One of the most important problems before the American Mining Congress at this time is the elimination of the mining faker. The injuries inflicted by this class on legitimate mining investment have given cause for deep consideration as to a means to prevent a continuance of these nefarious practices.

As a suggestion to prevent fraud in mining investments, I presented my views in a paper to the Congress which was held in El Paso, Texas, in November, 1905. At that time, I suggested the adoption of a law by the different States, similar in character to one which I had the honor of presenting to, and which was passed a short time previous, by the California Legislature. This law, briefly stated, made it a felony for any officer of a stock corporation to issue, by prospectus or otherwise, any untrue or wilfully exaggerated statement which would have a tendency to give to the shares in such corporation, more or less value than they really possessed, or with the intention of defrauding any person, or the public, etc.

The suggestion offered was accepted, and through the efforts of the officers of the American Mining Congress, a similar law has been enacted in several states.

There is no question but that this law has had a beneficial influence. I have had considerable opportunity to observe its effect. Before its enactment the State was flooded with the wildly exaggerated prospectus and newspaper advertisement, but since that time, the "faker" has been more careful in the wording of his reading matter, or has ceased to advertise, perhaps relying on the "oral persuasion" of himself or his "fiscal agents."

This law has not entirely eliminated the fraudulent promoter from California, but it has had the effect of reduc-

ing his numbers to a very great extent. It seems almost impossible to put an end to the operations of some of this class, and they continue in the face of all obstacles. As an instance, I will cite the case of one individual it was my pleasure to assist in convicting for robbing the widow and orphan. He was sentenced in the Superior Court of San Francisco to serve six years in the penitentiary. He was sent to the county jail pending an appeal that he made to the Supreme Court. Having abundant means secured by his swindling mining operations, he was able to arrange for the best accommodations obtainable and to provide himself with conveniences, with which he continued to send glowing accounts of the fine progress he was making at the mine, to numerous dupes in the East who had not heard of his incarceration. He made appeals for the purchase of more stock in a "sure winner," etc. He operated through a confederate who received his mail at a down-town office. Knowledge of his correspondence was brought to my attention, and it became necessary to have a fraud order issued against him by the postoffice authorities before his practices could be stopped.

While such a law as I have quoted has a deterrent effect on the "faker," the damage he inflicts cannot be corrected until it is too late, and the dupe has parted with the money. What is needed is some method for the *prevention* of fraud, and I doubt not that many members of this Congress have given much thought as how best to accomplish the desired end. As stated in my former paper, some will contend that "it is impossible to so legislate as to protect gullible persons from purchasing gold bricks, wild cat mining stocks, or any other plated investment," but I believe much good has already been accomplished through the efforts of several states in providing legislation which aims to protect the mining investor.

What I believe will be a surer means of obtaining the desired result, and a long step in the right direction, is a suggestion offered by Hon. James N. Gillett, Governor of California, and which as I understand is that the office of Commissioner of Corporations be created, with full power

to investigate companies, and to whom all corporations shall render sworn statements concerning the details of their operations, assets, liabilities, holdings, etc.; also to have free access to all books, papers, etc., concerning the affairs of a company.

While an act creating the office of Commissioner of Corporations has not yet been entirely formulated, I believe that should such office be created, the powers would be similar to that of our State Bank Commissioners. With such an official, and the proper powers vested in him, in my opinion, it will tend to lessen the possibilities of fraud.

It is probable that this matter will be recommended by Governor Gillett to our next Legislature.

Publicity.

Another means of suppression, and which the faker most dreads, is publicity of his methods. This has been found to be a very effective weapon in assisting to wipe out this evil. It must be considered, however, that every one does not read the newspapers, and particularly is this the case with the persons who generally buy gold bricks and fake mining stock. Then again, after he is exposed, the faker often continues his operations under another name. Sometimes we find that by the time evidence is collected to justify an exposure in the newspapers, most of the damage has been done, and the faker is the winner to the extent of many thousands of dollars. With the assistance of the legitimate press in exposing these fraudulent schemes, at any stage of the operations, much good can be accomplished.

The postal authorities are as active as their means will allow, but it takes a long time to obtain a fraud order, and in the mean time, the faker continues to do business. As much of the harm is done through fraudulent stock operations, I believe that the quickest way to determine the fraud, and secure immediate action, will be by the method suggested by Governor Gillett, namely, corporation control.

I have given the matter very considerable thought, and have considered it from every point, and I really believe that

to be the best suggestion which has been offered. I think that after the Commissioner of Corporations has been appointed it would be necessary for any incorporated company to file with such commissioner all the necessary data which which would advise him as to whether it was a legitimate corporation or not. If it was not a legitimate corporation, and was not properly secured, it would be then the duty of the commissioner to put a stop to it, and, as I said before, I believe if these things can be taken hold of right at the start and prevented, then we will suffer no more from the fake promoter.

Railroads and Mining Development.

BY JAMES W. ABBOTT, PIOCHE, NEV.

In discussing the relation of railroads to the development of mining enterprises and the mining industry generally, we encounter so many fundamentally opposing situations and conditions that the lay mind, looking at the subject superficially, might naturally call them paradoxes.

The real mining history of this country began immediately after the discovery of gold in California, on January 18, 1848. To that excitement, railroads bore little relation. The apparatus used in recovering gold from the gravels was at first very simple and primitive. The product was prepared by nature in the most concentrated form and a man could take out a fortune in a season and carry it away on his person. The first railroad which resulted from the gold excitement was built across the Isthmus of Panama. It was opened in 1855, and served as the connecting link between lines of steamers on the Atlantic and on the Pacific. Up to that time nearly all bulky and heavy freight went from the east to the mines of California by way of Cape Horn. For the first twenty-five years of those days of gold, practically all the machinery and supplies which were used in the construction and operation of the quartz mills were conveyed from tidewater at Sacramento or San Francisco to their destination in wagons or on pack animals. In this branch of mining, the product was in a form so concentrated that horses only were adequate to carry it to the mint.

The discovery of the Washoe diggings, in what later came to be known as Virginia City and Gold Hill, Nevada, also came before the day of railroads. The rush to the Washoe diggings, called the Comstock excitement after one of the earliest discoverers, got fairly under way in 1858. At that time the overland mail to the Pacific coast was carried by way of El Paso from Fort Smith, Arkansas, to Los Angeles and up the coast. Almost at the beginning of the Civil

War this line of communication was interrupted by military activity, and then the Post Office department let the first contract to carry mail by the Central Overland route, passing through Denver and Salt Lake City. Those were the halcyon days of the stage coach and the mule train. The wagon road through Placerville and over the Sierras to Virginia City was for years more closely thronged than the old Cumberland road across the Alleghenies to the new settlements on the fertile prairies of the West. The product of the Virginia City mines was still in form so concentrated as to easily bear the cost of wagon transportation. Of course, the expense of freighting heavy machinery for the early mills erected in that region was prodigious, but nature was then producing her riches in such abundance that prodigality and waste were inevitable.

The enormous traffic resulting from the Nevada mines was the controlling factor that determined the building of the first trans-continental railroad. It is almost impossible for anyone living in and accustomed to Twentieth century conditions to force his mind to comprehend what an enormous undertaking it was in the 60's to build 2,000 miles of railroad across trackless wastes, over rugged mountain ranges, to stretch the first threads of steel that connected the two oceans. Except for a little handful of people at Denver and Salt Lake, there was not, along the line of that road, a settlement of white men of any importance between the Mississippi river and San Francisco bay. We cannot easily conjecture how or when a trans-continental railroad would have been built if it had not been for the wealth of the Nevada mines. It was the optimism, the broad development of character that grew out of the trials and triumphs of the Argonauts which fitted its promoters to inspire in the minds of the conservative financiers of the East confidence to invest a dollar in such a formidable undertaking. So long as there were fertile prairies left on which the pioneer could make a home for himself and family, the line of settlement would have slowly crept westward, and after a time the railroad would have followed it. But when that line reached

the semi-arid plains of western Nebraska, it would have stopped, and I do not believe that in twenty-five years private capital could have been secured to extend such a line another foot towards the Pacific without the lure of the gold and the silver of the western mines.

As the mines got deeper, the nature of the ores always changed, and after a time these mines became absolutely dependent upon railroad service. Fuel and timber, which at first were secured near the mines, grew scarce and had to be brought in from a distance. Smelters had to be built, furnaces had to be fed with coal and coke, and the output of the smelter required the utmost available economy in transportation.

Another vitally important element of the problem affecting the dependence of the mines upon the railroads was the diminishing value of silver. After a time silver had decreased so seriously that a crisis was reached and the silver mining industry of the West passed into eclipse.

After the trans-continental railroad, which had been ushered in by the mines, had been developed with the rapidly expanding settlement which naturally attended and followed it, it was easier to get money for such enterprises after demonstrating than it had been while the question was enveloped in doubt and while there was no precedent to influence conclusions. The trans-continental railroads, passing through many vicissitudes during the first few years, have finally become thoroughly established and profitable enterprises.

As the mines were first responsible for the railroads, a period is now coming when the railroads are going to be more and more responsible for the mines. All through this western mountain country from British Columbia to Mexico, there are vast undeveloped mineral deposits which must depend absolutely upon the stimulating influence of railroads. The railroad is a quasi public institution. As such it has its moral responsibilities, and while, of course, it is natural for the railroad management to calculate closely the balance sheet, still a broad-minded policy will treat the

question more and more in a broad and liberal way. The fertile prairies are occupied and mostly under cultivation. The material development of the United States in the next ten years must take place through this inter-mountain country.

One of the conditions which must be always impressed upon railroad management is that the development of mining territory furnished a wide market for all products required by mining communities. It furnishes a market for the output of the farm, and for manufactured goods of every kind. There can be no greater stimulus to a general, healthful and profitable development of a region in every normal line than that which comes through developing the mines. Every railroad management operating in this inter-mountain country ought to have its mining department in which a skilled corps of trained mining men shall be ever ready to aid the miner in every reasonable way to solve his problems and to overcome his difficulties. I do not mean that the railroad shall necessarily expend its money in mining enterprises directly, but, I do mean that the railroad, through its various channels of influence, is in a position to aid the miner often when the miner would have no other available resource for assistance.

Every mining engineer whose business takes him through this country, so wonderfully rich in natural resources, knows of deposits now idle which have merit, and which can be converted into great producing enterprises, and enterprises which would richly reward the intelligent railroad management that saw fit to extend to them its fostering aid in the beginning. I do not know of any way in which the Mining Congress can today make its influence felt more forcibly than by using it with the management of railroads along the lines I am now suggesting. This coast ought to produce its own iron and steel. It has been suggested at times in the daily press that some of the great trans-continental systems would oppose the establishment of a large iron industry on this coast, on the theory that it would thereby lose the haul of such products from eastern

foundries and factories. It is inconceivable that a view so narrow, so perverted and so wholly contrary to enlightened self interest should be held by anybody. Where will you find communities more profitable to railroads than those which have grown up in Pennsylvania, Ohio and New York, depending upon iron industries. Pittsburg and Cleveland are ever increasing mines of wealth to railroads. The most optimistic of us can hardly conceive what this coast will be with the physical attractions that are already developed here, supplemented by the wonderful industrial activity that will follow the development of iron and steel industries.

In the main, I feel that the railroads are to be commended for the part they have taken in our westward development. I know that it is popular to criticise; I know that it is human nature never to be satisfied with what we attain, but always to desire something further and better than we get. I have no doubt that there have been wrong and oppression practiced at times. I have no doubt that the policy of "all the traffic will bear" has been practiced and that to some extent communities have been enslaved, but my memory reaches back vividly to the days of the stage coach and the trials and hardships of the pioneers in this western country in regions remote from railroads. I know what advantages the railroads can bring and I have never felt like begrudging to the railroads the handsome return for their enterprise and for the hazard which it involved. I never forget that most of the railroad enterprises have had their periods of great stress; that many who invested at first lost what they put in. I feel that the railroads, which have worked out their problems and have finally reached strong and safe ground, are as much entitled to the fruits of their efforts as any man in this city is entitled to the money he has made because he or his ancestors had the foresight or good fortune to invest in Los Angeles real estate in an early day.

As I view it, nearly all the accumulated wealth of the United States has resulted from a growth from crude beginnings. The farms in Iowa, which today are worth \$200 an acre; the fertile lands of the Imperial Valley, which

would bring perhaps \$1,000 an acre today, were once held in such light esteem that they could not have been sold at auction for \$10 an acre.

The railroads are just as much entitled to the increased value of their property, which comes from the development of a country, as their patrons are entitled to the increased value of their property which has resulted from the facilities coming to them through the railroads.

These are the days of advancing prices. The question, whether it is right and fair and square to go to the railroads and say "You must meet these changing conditions by granting your employees higher wages," and then say to them, "You shall not yourself participate in any benefits due to a higher price for your service," is one which can only be settled in accordance with those principles expressed in the Sermon on the Mount. I feel that the people of California owe the railroads fully as much as the railroads owe to them. I feel that the people of all this Western country are as much indebted to the railroads as the railroads are to them.

But I am no blind partisan of the railroads. If the railroads do wrong, I think that they should be held to a strict accountability for that wrong. I believe that every state should have its own effective Highway Commission, which should be so constructed as to be independent of insidious and arbitrary railroad influence. I believe that such a commission should have supervision in all cases where railroads show a tendency to do wrong.

The community where I have cast my own lot has recently been subjected to the most stupendous wrong I have ever known in railroad management. Since I came west of the Mississippi river thirty-five years ago I have never heard of a case like it. I refer to the town of Pioche, one of the great historic mining camps of early day Nevada history. Nothing in the annals of western mining enterprises exceeds in interest the wonderful record of this early town of Pioche. It is a camp of marvelous mineralization and under proper fostering care will yet respond most generously in traffic to the railroad. We passed through a pretty

trying time just after our railroad was opened in January, 1908. There were times of panic when real money was not very much in evidence, but our people worked bravely along and we have opened several mines which will yet produce in a large way. As the year 1909 closed, we felt that the worst was over and that the future was bright with promise. Plans were near completion for equipping and opening several of these properties under strong management. Without a warning cloud, the awful floods of January 1st came and swept away our railroad. For six months we were marooned. All mining operation ceased. Without timbers, without distillate, without coal, we could not mine. When at last the line was again opened, paralysis resulting from this catastrophe was so general that it naturally required a little time to overcome it. Two of our most important mines resumed operations at once. One has always been a shipper and the business originated by that mine alone would defray the expense of a daily train on our railroad. The other has enormous promise, both for the camp and for the railroad. Not less than six other properties are arranging to resume, while dozens of smaller enterprises will do more or less work this fall.

For a few days the railroad gave us its customary service of one train each way daily. The receipts were in excess of the outlay. I make this assertion regardless of what anyone may claim to the contrary. Books can be kept to show almost any desired state of facts. Then they cut our service down to three trains each way a week, and now they have cut the service to one train each way a week. If anyone who hears or reads this paper knows of a similar case in western railroad history in a mining region, I should be grateful if he would advise me of it.

We have a railroad commission in Nevada, and the Nevada law protects us against such an outrage, but railroads have such a community as ours at a disadvantage. Our people have been stunned by the blow and they have not known how to fight back effectively. I do not know that they will make any effort, but I do know that such policies are shortsighted and produce conditions which it is always difficult

to efface. When a man considers himself wronged through and through, it is hard to ever shake off that feeling. When impressions of that character cover a community, they are liable to spread to a state and they do harm. It is to the interest of our railroad to work with us to protect the fruits of our labors and to help us to help them by a resumption of general activity.

I am not unmindful of the deplorable misfortune which befell the railroad in the washing out of their line for the fourth time. All right minded men must sympathize with them. To rebuild in the permanent way they planned is going to be very expensive, but it is my judgment that the advantages which will come through the magnificent methods of reconstruction will be sufficient within a reasonable time to recoup all their losses and leave them with one of the most impressive railroad lines in the United States. I have no quarrel with their officers, most of whom I esteem highly, but I speak of this instance as illustrating the principle I have announced, that it is not only the best policy for a railroad, but it is a moral obligation resting upon the railroad management to help the communities they serve, and for the existence of which they are themselves responsible, to work out their problems.

The deplorable wrong to which Pioche has been subjected has not furnished the motive for this paper, but it presents a most important illustration of how a railroad serving a mining community can go wrong. It emphasizes the need, not only for firm supervision of railroads by a State Railroad Commission, but it also presents a situation of tremendous importance to the subject with which this paper deals. It seems to me a most important question to be considered by a congress of this character, organized to combat wrong and to promote right in the mining industry.

Proposed Legislation For The Disposition Of The Public Lands.

(A letter by Hon. Richard A. Ballinger, Secretary of the Interior, Washington, D. C.)

To the Officers, Members and Delegates of the American Mining Congress.

Because of my interest in the development of the mineral resources of our public domain, I would be pleased to attend the coming convention of the American Mining Congress, but fear that I will not be able to do so because of official duties which will require my return to Washington City prior to the date of your convention.

The administration conservation bills were prepared in the form of suggestions for the consideration of Congress, and so far as I personally am concerned, I am not insistent upon their adoption as drawn, but will welcome any changes therein, which will aid in the conservation and development of the resources affected by the measures.

In my annual report to the President for the year 1909, I suggested with reference to coal lands the importance of separating the right to mine from the title to the surface. This has been accomplished by legislation adopted at the last session. I further suggested that the conservation of the coal deposits and the prevention of monopoly or extortion might be accomplished either through a leasing system or through the sale of the coal with restrictions as to mining and use. This recommendation contemplated requiring the lessees or grantees to open and mine the coal deposits with provisions in the lease or grant for the forfeiture of title in the event of combinations as to price, or limitation of the output. Practically the same suggestions were made with reference to oil and gas deposits. Deposits of phosphates are of special interest because of their importance in connection with the refertilization of improverished soils, and it is of primary importance that the undisposed of deposits of phosphate should hereafter be disposed of upon

such conditions and with such limitations as will secure their use upon American soil.

With reference to the remaining timber upon the public domain outside the national reserves, I recommend the repeal of the timber and stone acts and the enactment of a law providing for the separate disposition of the timber from the land, the latter to be disposed of after the removal of the timber under appropriate agricultural or mineral laws. It seems to me this method of disposition would provide a means whereby this timber might be utilized as needed, while the land itself would remain for disposition under the homestead laws, if suitable for agriculture or for exploration, or purchase under the general mining laws if mineral in character. Provision should also be made for a preference right to purchase by the homestead or mineral claimant of the timber on his claim. The matter of protecting those public lands suitable for sites for development of hydro-electric power has evoked much public interest, and more than a million and a half acres of public lands have been withdrawn for this purpose. In the report above described, I recommended that if the federal government desires to control or supervise water power development, it can do so by enactment of a measure, which will grant a lease or easement for a limited period with the option of renewal, provision being made for prompt development and a moderate charge for the rights granted or the entering into any combination to charge rates beyond a reasonable profit on the investment and cost of operation. It is admitted by nearly every one that the waters of the streams are subject to state jurisdiction in their appropriation and beneficial use, and with this in mind bills were introduced in Congress during the last session, providing for the granting of public lands for this kind of development to the states, upon condition that they dispose of easements or leases for the development of electrical power upon proper conditions, the title to the lands to revert to the general government in the event of their application to any other use.

Our present public land laws in so far as they relate to the classes of land hereinbefore described need revision, and

even if Congress shall fail to agree entirely with the suggestions made by the Department or the bills presented, it is hoped that same will form the basis for new legislation. Any departure in legislation on these subjects is of course in a sense experimental, but it is the desire of the Interior Department to secure practical legislation and eliminate the experimental feature so far as possible.

It seems that the efforts of all citizens and organizations interested in the subject should tend to the direction of securing such legislation as will promote development but guard the public interest by protecting against injurious monopoly or unreasonable charges to the consumer for these resources.

With reference to the minerals other than those described, and it seems there is a clear line of demarcation between the fuel minerals and those which may be denominated as the precious metals, I believe that our present mining laws based upon the experience and wisdom of those who for nearly half a century have participated in their development should not be changed, except by such amendments or additions as may be deemed essential to improve them. In this connection it is believed that the law should be modified so as to require mining location notices to be placed on record in the local land offices of the district where the lands are situated, that final payment and entry upon mining claims should be required to be made within a fixed period after location, say seven years, exclusive of such period as the claims may be involved in contest or adverse proceedings and that the placer mining laws should be amended so as to make the maximum area subject to location by an association, corporation, or individual, forty areas.

Again assuring you of my interest in the work of your association and trusting that the next convention will be a most successful one, I remain,

Sincerely yours,

R. A. BALLINGER,

To Hon. J. F. Callbreath, Jr.,

Secretary, American Mining Congress,

Denver, Colorado.

The Public Lands.

Shall We Have Private Ownership Or a Leasing System.

BY FRANK W. MONDELL, CHAIRMAN PUBLIC LANDS COMMITTEE,
HOUSE OF REPRESENTATIVES.

To the Officers and Delegates of the American Mining Congress, Los Angeles, California.

Gentlemen:

It is a matter of very great regret to me that I am unable to accept the invitation, forwarded by your Secretary, to attend the Los Angeles meeting of the Mining Congress, but other important engagements render it impossible for me to do so. However, at the request of your Secretary I avail myself of the opportunity to make a few suggestions with regard to the outlook for American mining industries, particularly as they are affected by our public land policy.

The fact that our liberal public land policy of the past has been instrumental in a marked degree in stimulating and encouraging mining development will not, I assume, be denied by anyone though there may be some difference of opinion as to what extent the liberality of the land laws has tended to the concentration of the mining industries in large enterprises; as there will also be differences of opinion as to the comparative advantages and disadvantages of such concentration, though no one can deny that the larger the number of operations, the larger the number of people interested in them, within reason, the greater will be the benefits which arise from the profits of operation.

The real question which now confronts the American people with regard to the utilization of the mineral resources of the public lands is, *shall this utilization continue on the basis of private ownership, and a fee title, or shall the resources of the remaining portions of the public domain be developed on the basis of National ownership under a system of leasing?*

So far as the metalliferous minerals are concerned the demand for the retention of lands containing such minerals in public ownership and their development on a royalty

basis, has not as yet been generally voiced; but, inasmuch as there is no definite or controlling reason why lands containing metalliferous minerals should be open to free exploitation while lands containing non-metalliferous minerals are worked under leasehold, we may reasonably expect that if a National leasing system were established, it would eventually extend to metalliferous minerals.

Against a Federal mineral leasing system a policy of perpetual Government landlordism stands, the argument of past experience voicing the fact that no self-governing and free people (if we except the questionable success of experiments in that direction in New Zealand and Australia) have ever permanently established and maintained a system of Government landlordism, and that the phenomenal success of the mining industry in the United States has unquestionably been largely due to individual ownership, initiative and enterprise.

The permanent retention in Government ownership of vast areas of lands in Western States, and the perpetual collection of royalties to be paid into the Federal Treasury from the States thus taxed is particularly repugnant to a large majority of the people of the region affected, as representing a direct tax, through royalties, upon mineral production in Western States not laid upon like production in other parts of the Union, and strikes them as being not only unfair, but contrary to the spirit of our institutions and the established policy of our people.

While all these arguments, and many others that can be made in opposition to the establishment of a Federal leasing system, have much force, it should be borne in mind that there has been developed in the country in the past few years, by the wide publicity given to the views of a certain class of people on the subject, a strong sentiment in favor of the retention of the title to the mineral bearing public lands in the Nation. And this sentiment must be reckoned with. The matter should be treated not from the narrow standpoint of individual benefit but from the broader standpoint of the general good.

It has not been uncommon for men who are strongly opposed to the principles of a Federal leasing system, a perpetual control over the mineral resources of the West, to lend their countenance to some features of the general policy they oppose either with a view of temporary relief from an embarrassing situation or because of some possibility of personal benefit.

It is either wise or unwise, just or unjust; it will be either helpful or disastrous to a majority of the American people if we shall depart from our past policy of private ownership of lands containing mineral, private development of water powers under proper local control and supervision, and pass to a system of Federal landlordism and perpetual Federal taxation. And it is important that every good citizen in a position to exert influence in these matters should determine which policy, in his opinion, would be best for the country at large and exert his influence accordingly.

It may be suggested that modification of our past policy of full individual ownership and control could be adopted which would be reasonably satisfactory both to the individualist and to those who advocate a National Socialism,—National ownership and leasehold. Whether or not this is possible is a problem, though there are those who, holding stoutly to a continuance of our past policy, might be willing to try the experiment of leasehold in a limited way and confined to certain classes of products.

I believe it is quite generally agreed that if the policy of passing mineral lands, and lands controlling power development, into private ownership, can be continued without danger of monopoly and of oppressive combinations, such a policy should be continued. Of course those who are believers in the doctrine, which unfortunately is gaining some considerable foothold, that the production of certain classes of wealth in certain States should be subject to a Federal tax not laid upon industries of other States, will dissent from this proposition.

The question then is: *Does private ownership of mineral lands; private development of mineral resources, including the development of water power; necessarily lead to monopoly, and if so,*

is the most effective, or the one effective way to prevent such monopoly, to retain direct ownership and control in the Federal Government?

For myself I am much inclined to answer these propositions in the negative. Of late years the Nation has bulked so large in the public eye that we have largely lost sight of the fact that people locally, in their communities, municipalities, and particularly through the States, are sovereign in their control over the industries of their territory and that many classes of mining industries and development are distinctly local in their character and subject to local control to the fullest extent. This is particularly true of water power development in all irrigation States, where the State exercises a complete control, at all times, over the use of water for power development as well as for other purposes and can therefore prevent exaction or oppression.

In the case of other classes of mineral development, such as that of coal, the fact has been overlooked to a considerable extent that the question of the price of coal is very largely one of transportation; that nowhere in the United States, with the possible exception of the anthracite coal regions, is coal sold at the pit mouth above a reasonable price. In fact, Federal comments on the situation are to the effect that the price at the pit mouth is generally so low as to compel waste through the necessity of leaving in the mine, or on the dump, the inferior or less desirable grades of coal. The coal question, therefore, is one most largely affected by transportation.

Transportation questions are to be settled not through ownership of coal mines by the Government, but through the control of railway corporations by the people. Furthermore, we have not lost faith in the efficacy of laws that aim at combinations in restraint of trade. These weapons are as effective in the western regions where the Government still owns lands bearing mineral as in the East where the lands have long since passed into private ownership.

In conclusion I would say that in the consideration of this important question we should have in mind the fact

that there is a very decided difference of opinion on the subject which must be taken into consideration; that it is the duty of all good citizens, and particularly an Association like this, to have a fair and open discussion of the subject and a frank expression of opinion.

The Anglo-Saxon world is strongly wedded to the idea of private ownership of land, and other property; strongly convinced of the necessity of such a policy to bring out the best efforts and endeavors of the people.

It will require strong arguments to convince a majority of those who have given the matter consideration that a contrary policy is in the long run a wise or beneficial one. But it will not settle the question to be dogmatic, and every argument pro and con must be carefully considered and manfully met.

The time has passed when any class of people can discredit the argument of others on these subjects by the assertion that those who differ with them are actuated solely by narrow self interest and a desire to "loot the public domain" and "rob the people of their heritage." The questions involved are altogether too serious to be answered by mere accusation and assertion of superior virtue.

We are all anxious to reach a solution which shall in the long run result in the greatest good to the greatest number of our people, and from that standpoint the widest discussion should be encouraged.

Yours respectfully,

F. W. MONDELL.

Conservation As It Affects Western Development.

BY GOVERNOR RICHARD E. SLOAN, PHOENIX, ARIZONA.

Mr. Chairman and Members of the Mining Congress:

I have been unable to attend or even to follow the proceedings of this Congress heretofore, and hence, am somewhat in the dark as to how far and to what extent the general subject of conservation has been considered or discussed. I trust, therefore, I may be pardoned if I should touch upon matters which have been fully considered, and in a sense, disposed of by the Congress.

While I did not attend the meeting of the Western Governors held at Salt Lake City at the instance of my friend Governor Hay of Washington, and, while I did not attend the meeting of the Conservation Congress at St. Paul I, nevertheless, followed the proceedings of both meetings with great interest with a view of getting at the real differences between the Eastern and Western points of view, and ascertaining whether, if possible, the two are so far apart as to be irreconcilable.

Speaking as a Western man, whose sympathies are wholly Western, I say by way of introduction that I have not yet become panic stricken over the possibility of any "new nationalism" usurping the police powers of the States, or over the probability that the "twilight zone" between Federal and State jurisdictions, if there be any such, may be occupied and held by the central government to the exclusion of the rights of the States. What I fear most is that this question of conservation may become a political one, and be used for partisan ends at the hazard of being diverted from its true purpose and end. In saying this I am perfectly aware that public opinion in the East is hostile in some respects to the views and interests of the people of the West; that there is a strong sentiment in favor of the retention of our coal, oil and mineral lands, of our forests and water power, on the public domain, as a national possession to be exploited

for the sake of the assumed rich revenues which may be derived therefrom for the benefit of the national treasury. I know too, that a strong feeling exists, that there has been heretofore land frauds of gigantic proportions perpetrated and, that the coal, oil and timber lands of the West, have been gobbled up in the interest of monopoly, and further, that the people of the West are in sympathy with the land thieves and wrong doers. Public sentiment, however, of this kind may be corrected by the right sort of presentation of the real facts and conditions. This has not been done heretofore. I have faith to believe that the American people as a whole with a knowledge of the facts and conditions as they actually exist in the West will be fair, and that the just and right demands of the Western people will be heeded and that no policy will permanently be adopted, which will not take into account their interest and the rights of the States as well. I am, therefore, strongly in favor of any movement looking toward the largest publicity of the Western view and the fullest presentation to the country of the facts and reasons in support of that view. I counsel, however, moderation, the broadest tolerance, and the utmost candor in the presentation of our cause. Let us show by our example that we are sincere, honest and just, and that we do not ask for anything unreasonable but on the contrary welcome the fullest investigation, the most searching and rigorous investigation, into any and all charges of fraudulent acquisitions of public lands or attempts on the part of anybody to despoil the nation out of any of its domain. I do not fear such an investigation for I am persuaded that the truth will disclose that the people of the West are, for the most part, honest, and do not seek to wrong the people of the nation, or to impede the cause of conservation for selfish reasons or purposes. If we are successful it will be because we are right and because we present our cause in the right spirit and attitude.

The powers of the Federal government are limited by the constitution, and as it does not seem possible that the extreme nationalists may secure any amendment to the constitution of the United States which will enlarge those

powers, the only danger that we may fear is that the Federal government as the proprietor of the public lands in the Western States may adopt such a policy with reference to the disposition of those lands as to injure and retard the growth and development of the West. The thing which the West should insist upon through its representatives in Congress, through the public press and every avenue of publicity, is that our people shall not be taxed to create a revenue from our natural resources in excess of what may be needed by the Government for the proper conservation of these resources.

The West, to secure its just rights, must formulate and agree upon some policy of practical conservation which will appeal to the intelligence and patriotism of the whole country. As the President at St. Paul said the other day, "The time for rapsodies is past." It is also perhaps proper to say that the time for acrimonious discussion and of charges of bad faith on the one side and of narrowness, bigotry and impractical idealism on the other side should be ended and that the time has come for those occupying middle ground on this question to endeavor to work out a practical solution of its many difficulties.

I represent a Territory, which hopes, however, soon to be a State. I belong to the obnoxious class known as Federal Office Holders, a class which is assumed to represent the views of the national administration. In my own case, however, it is only an assumption. If I were to express my creed upon the subject of national conservation it would be in general that there should be no revolutionary overhauling of the laws relating to the disposition of our public domain, but that these should be amended only where necessary to effect the general purpose of conservation pure and simple. The homestead Act by means of which title to the great bulk of public lands in the middle West has been acquired should not be repealed or amended so as to add materially to the cost or difficulties of homesteaders in acquiring titles. I believe that the forest service should be maintained on much the same lines as at present. Our coal and oil lands should be open to exploration and discovery

and their development and opening up should be encouraged by a system of leasing or sale upon such terms as will permit these resources to be utilized for the benefit of the people of the States or Territories where they may be situated; that stringent laws against monopoly or extortion on the part of the holders of such land should be enacted, a violation of which should work a forfeiture of all rights or titles to such lands held by the offenders. No embargo should be permitted on prospecting for minerals on the public domain, and the development and utilization of our water power should be encouraged with proper safe guards against monopoly, wherever monopoly is possible and against extortion on the part of the appropriators of such water power.

Having stated my views in general terms as to what the national policy in dealing with the public domain should be, permit me briefly to enlarge upon one or two points in their bearing, particularly, upon the development of the mining industry.

I am a thorough believer in the wisdom of the national policy in respect to forest reserves. In Arizona I have observed the good effects of this policy both in the protection of the forest and in the growth of young trees. Fire is the great destructive agency as we all know, and I am convinced that danger to our standing timber from this source has been minimized by the creation of the reserves. It is, however, useless to deny that there are objections to the forest service as now recognized and conducted. The greatest cause of friction at present in the relations of the Forest Service to the people of the Territory has been in the enforcement of the rules and regulations appertaining to mining and prospecting within the forest reserves. As near as I can ascertain, however, much of this friction is unnecessary and due to the want of tact or judgment on the part of government employes in the application of the rules and regulations promulgated by the Department, governing the matter of mining and prospecting, and not to the rules and regulations themselves. Complaints have frequently been made to me by miners within the forest reserves that they are treated by the government employes as though they

were trespassers and interlopers; that if they want timber for mining purposes they are frequently subjected unnecessarily to delays which seriously affect their business; and that titles to mining claims located within reserves are made precarious by reason of adverse reports made by incompetent examiners as to their validity, and that patents are frequently held up unnecessarily and without just cause in the same way.

I am convinced that there is occasion for these complaints in some instances. They have their source, however, largely in the misguided zeal of government employes. It must be remembered that the Forest Service is comparatively new and that heretofore many of those engaged in the service are untrained and inexperienced as to their duties. Many of them have been sick boys sent out from the East without experience and wholly without sympathy with the people with whom they must necessarily transact business. It is impossible in many instances for the government to guard against a certain measure of arrogance, incompetence and mistaken zeal on the part of its employes. This is the weakness of bureaucracy. It is only possible for such supervision and wise control over subordinates on the part of heads of departments or bureaus so as to minimize these evils. In justice, however, I believe that many of the complaints are unfounded in fact and unjust. Restriction of any kind is obnoxious to many people, especially to those who have been unaccustomed to any sort of limitation upon their use of the public domain. Miners are notorious kickers when it comes to matters of personal liberty or freedom of conduct, and, therefore, it is not fair to set down against the Forest Service all the charges and complaints of unfair treatment which we hear. There is in my judgment however, sufficient truth in them to warrant the belief that there is room for improvement, if not reformation, in the administration of the Forest Service, especially in the matter of the enforcement of rules and regulations of the Department with reference to mining and prospecting within the reserves. I do not know how it is elsewhere, but I know that in the Southwest there is no organization of men en-

gaged in mining which may properly represent the industry in its relation to the Forest Service, as is the case with the sheep and cattle interests. The establishment of the Mining Bureau ought to and undoubtedly will aid in securing satisfactory adjustments of differences which may arise between the mining industry and the government in relation to the forest reserves. This is an age of organization, combination and of co-operation between people having interests in common. In my judgment mining men, especially in the Southwest, have made a mistake in overlooking the importance of such organization.

With regard to our water power, and this is a matter in which the mining industry is vitally concerned, I can only speak from the limited knowledge I have of the subject.

In Arizona we do not have many power sites aside from those that may be found in the Grand Canon of the Colorado river. It would ordinarily be an easy thing to establish a monopoly of water power by a combination between the holders thereof in my Territory. Fortunately, however, our laws are ample to protect against monopoly or extortion. Under these laws the water of public streams, not navigable, are declared to be public property and the legislature may, therefore, determine the terms and conditions upon which the right to use the same may be acquired and maintained. The constitution of our new State will undoubtedly adhere to the policy of retaining the title to public waters in the State. Notwithstanding this, however, I see no reason why Congress should not grant its power sites upon liberal terms, retaining, however, such rights over them as will guard against monopoly or extortion on the part of the holders thereof. These regulations, however, in justice to the consumers of power under these projects should not involve a burdensome tax upon such consumers of such power.

With regard to oil and coal lands I favor the sale and leasing of these upon terms which will encourage prospecting and the development of these natural resources. It is unfair, of course, to expect the government to lease or sell such lands upon terms which will amount to a practical

gift to the purchasers, and on the other hand, it would be unjust to exact such rental or to place such a value upon them as to make the cost of oil or of coal to the consumers in our Western States extortionate or even to materially add to their cost. In my judgment it would be as unjust for the government to establish indirectly a monopoly and be a party to extortion as in the case of a corporation or combination of interests. As in the case of water power, I see no reason why rights to coal or oil lands might not be granted upon liberal terms with such reservations in the grants as will safeguard the government against waste, prevent monopoly and extortion on the part of its grantees. This, in my judgment, the national government should confine its policy of conservation, first, to prevent waste or destruction of our national resources included within the public domain, and second, to prevent those national resources from falling into the hands of interests which would exploit them in such a way to make the cost to the consumers unreasonable or extortionate. Aside from this every encouragement should be given toward the right development and use of our agricultural and mineral lands, forest and water power.

Looking at this whole matter of conservation in its relation to Western development I see much to encourage the belief that a solution of the problem of reaching a satisfactory basis of co-operation between the national and State governments may be reached. The people of the West, who are most vitally and immediately concerned, however, must take the initiative in adopting a broad, liberal and just policy for our State governments to adopt and put in force, and in the advocacy of some plan of national legislation which our representatives in Congress may advocate with justice and with such a showing as to actual facts and conditions as to compel the attention and gain the support of fair minded representatives from the Eastern states. Above and beyond everything else in my judgment every attempt to make this a political issue should be frowned down upon and any man who seeks notoriety or place or office, or any kind of personal advantage through the ad-

vocacy of this or that plan or this or that measure should meet with the condemnation of our Western people. If we are divided in sentiment or as to policy in this matter the solution of our difficulties will be postponed and disaster may follow. The States immediately interested including Arizona and New Mexico, number about a dozen. The population of these States does not exceed greatly that of the State of New York. The representation in the Senate from our Western mining States and Territories is only twenty and in the House of Representatives about the same. If we are to secure a right hearing and just treatment of the subject by Congress, the utmost harmony must exist between the various Western States and Territories and their representatives.

In closing permit me to express the hope that this Congress will prove the beginning of a movement which will lead to the formation of a consistent, wise and just plan of conservation, which will be adopted by our Western States with such unanimity and enthusiasm and with such a spirit of fairness, tolerance and good will towards the people of the East that it will meet as it deserves with the approbation of Congress and the nation.

Conservation.

BY GOVERNOR ADOLPH O. EBERHARDT OF MINNESOTA.

The conservation of natural resources does not consist merely in the preservation of these resources for the benefit of future generations, but rather such present use thereof as will result in the greatest general good and yet maintain that productive power which insures continued future enjoyment. While it is true that exhaustible resources like mineral wealth cannot be conserved for both future and present use, except by economic regulations and the prevention of wasteful methods, conservation deals with their distribution in such a way as to prevent their control by grasping corporations and individuals, who would monopolize them for their own exclusive benefit at the expense of the general public.

It follows necessarily that any theory of conservation which does not provide for the present as well as the future does not cover the entire field, and cannot possibly bring the best results. From every economic standpoint it is desirable, that the present generation should be preferred, since the future discoveries and inventions may render present resources of less value and importance to the coming generations.

In its broadest sense the conservation movement is not limited merely to the consideration of natural resources. Every great convention called to consider the problems involved has widened the scope of the movement so that today it includes the elimination of wasteful methods in almost every field of human activity, and the conservation of all human endeavor, so as to confer on all mankind the greatest blessings that a bounteous nature and twenty centuries of enlightenment can bestow.

Every consideration of natural resources for the purpose of eliminating wasteful methods, preserving and increasing productive power, as well as regulating operation

and control, has for its ultimate object the conservation of human energy, health and life, the securing of equal opportunities for all, and such dissemination of knowledge as will guarantee the continual possession and enjoyment of these blessings. The subjects for consideration by this Congress should, therefore, include not only the restoration and increase of soil fertility, the protection and development of forests, mines and waterpowers, the reclamation of arid and swamp lands by irrigation and drainage, the forestation of areas unsuited to farming, the control of rivers, of reservoirs so as to prevent flooding, as well as the elimination of waste in the use of these resources, but also the problems of public comfort, health and life that are so intimately connected with all material and intellectual development. Many of these questions will concern home attractions and management, industrial education in the public schools, public highways, State advertising and settlement, pure food, public health and sanitation.

By far the most important of all natural resources is the soil, and the maintenance and increase of its fertility must, therefore, be given the greatest consideration. As long as food is necessary to human life, agriculture must continue to be the most vital industry of man, and the farm will be the most general and indispensable theatre of his activity. We must have manufactures, art, schools, churches and government to round out our sphere of civilized existence, but the foundation of them all is the farm. From the earth come all the materials for manufactures, the commodities of commerce, and ultimately the support of all human institutions. During the half century just passed our country has devoted its energies to the development of manufacturing and commercial industries to such an extent that the scientific methods of agriculture necessary to insure not only the permanency of our institutions but the very existence of human life itself have been comparatively neglected. The pendulum is now swinging back to the farm, and our great nation is becoming aroused to the fact that its most vital concern is the elimination of soil waste, the promotion of scientific methods of agriculture, and the conservation of that soil fertility

which is the foundation of our entire social, political and commercial superstructure.

This new birth of agricultural progress comes at a most psychological moment. We have developed American manufactures until the \$16,000,000,000 product of our mills and factories exceeds that of Germany, France, and the United Kingdom combined. We have built railroads by liberal public and private enterprise, until the United States has about one-half of all the railway mileage and tonnage of the world. We have developed banking enterprises and home trade, until we have the greatest banking power on earth, and an internal commerce which far exceeds the entire foreign commerce of the globe. We have become the model of the world in our free public schools and our republican form of government. But while we have demonstrated the possession of the greatest agricultural resources on the globe and have heretofore supplied the world's markets with an unparalleled volume of farm products, we have wasted a wealth that would maintain our population for centuries. The loss in farm values in nearly all of the older states, as shown by the census records from 1880 to 1900, varies from \$1,000,000 to \$160,000,000 in each State and aggregates the enormous total of more than \$1,000,000,000. Is this not sufficient to arouse the entire nation and cause such a wave of reform as will put into activity every agency and instrumentality for scientific and progressive methods of agricultural reconstruction?

The unprecedented agricultural growth of the United States, in spite of wasteful methods, has been caused by the extraordinary fertility of its virgin soil, the great inducement offered by states and nation to promote settlement and cultivation, the rapid growth of favorable transportation facilities, as well as the great demand for agricultural products resulting from the rapid increase of population, wealth and commercial enterprise.

Drainage, farm settlement, good roads, forestry, transportation, industrial education, minerals, cheap heat and power resources are all important factors in the conservation movement. Minnesota has successfully drained about

3,000,000 acres in the northern part of the state at an average cost of two dollars per acre and converted into meadows, grain and clover fields, celery and cranberry gardens, what only a year or two since was a rough wilderness. Every State should have some effective way of making these results known to prospective settlers through exhibits and judicious advertising. No State officer is in a position to bring greater returns to the State than the immigration commissioner, and it is to be regretted that his work is so often crippled by lack of sufficient appropriations.

In marketing produce, distributing material, fertilizer, and machinery, the farmers of Minnesota haul annually approximately 20,000,000 wagon loads. Averaging the cost of each load over mostly unimproved roads at \$1.50, the cost of highway transportation in the State aggregate \$30,000,000. Most experts claim that uniformly good roads would reduce this cost one-half, but conceding for the sake of argument that the reduction would be only a third, the net saving to the farmers of the State in one year would be about \$10,000,000. However, this is not the most important result. The building of good roads would build up farm inter-communication and promote the consolidation of rural school districts by making it possible to carry the pupils at all seasons of the year some distance over country roads to the school at a minimum cost.

Several of the North Central border states were the chief shippers of lumber only a few years ago. Now our great forests are largely depleted and scientific reforestation has become an absolute necessity. One of the most important duties the States as well as the Nation have to perform is the transformation of this vast stumpage area into forests and farms. Practical and scientific reforestation should convert the lands unsuited for farming into forests so that every acre would produce revenue and furnish some necessity of life. The dry season of 1910 has particularly emphasized another important duty in this connection, and that is the protection of our forests and settlers from fires. It is a well known fact that enough timber has been destroyed by fire within the last four months to pay for the

adequate protection of all our forests for a period of ten years or more, not to mention the great loss of human life, which in itself imposes upon the States and Nation the duty of protection. This Congress should be instrumental in stirring public sentiment to such an extent that the various legislatures and congress take immediate steps to stop this needless and expensive waste.

Nature has endowed Minnesota with unlimited mineral resources and our State now produces over one-half of the iron ore in the United States, and one-fourth of that of the world. Since the first mine was opened 25 years ago, the shipments of iron ore up to December last year, have been approximately 225,000,000 tons. The ore in sight at the developed mines is now estimated at 1,500,000,000 tons, or about seven times the total amount already mined. In the meantime, new ranges and mines are being discovered and developed, and the resources of the undeveloped properties are held to be enormous. Our State school fund has already realized about \$21,000,000 from the proceeds of land, and it is safe to predict that in the near future valuable mineral deposits and timber sales will raise this income to \$100,000,000. An extensive steel plant is now in course of construction at Duluth, which in the near future will make Minnesota as famous in iron and steel manufacture as in the production of iron ore. It is found that coal for coking can be hauled to the lower lake furnaces. In addition thereto, peat and water-power resources, as well as important transportation advantages will co-operate in making this Minnesota port one of the greatest centers for the manufacture and distribution of iron and steel. No State in the Union could profit more from the development of waterway transportation than Minnesota. The canalization of the Mississippi river system of 16,000 miles and its connection with the Great Lakes would bring together the 100,000,000 tons of bituminous coal produced in Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri and Tennessee, and the iron ore of Minnesota, so as to produce in the Mississippi Valley the greatest iron and steel industries of the world.

Since mineral wealth is exhaustible, it follows that the interest of the people in this important resource should be guarded against the encroachments of greed with the utmost care.

No commercial Nation can long retain supremacy unless it has unlimited supplies of cheap heat and power. In the north central border States are located peat deposits that should furnish cheap heat and power for untold generations, Minnesota alone possessing more than 1,000,000 acres; and as the source of the three great watersheds of the country with an elevation of about 1,500 feet over sea and gulf level, there is an abundance of waterpower to turn the wheels of manufacture and commerce.

Time will not permit any consideration of the strictly human side of conservation. We have saved millions of dollars annually by guarding against plant and animal disease and are just beginning to take note of the untold millions wasted every month through neglect of preventable and curable disease, impure foods, defective sanitation and health inspection in homes and schools, unsuitable playgrounds for children and the lack of safeguards against railway, mine and factory accidents, all of which come properly within the conservation scope.

The splendid progress made by Minnesota and other States merely emphasizes the importance of the conservation movement. Warned by the decay of older nations, we must act before the crisis of exhausted natural resources reaches our Nation and commonwealth. Indeed warned by signs that are only too plain in our own midst, we must take decisive action without delay. Fortunately, we have passed the pioneer stage of development. Our Nation and commonwealths have all experienced many of the disasters resulting from the skimming of natural resources. Having discovered the vast mines of wealth which surround us everywhere, we must now and forever determine that ignorance, selfishness and greed shall no longer control our governments and exhaust our resources.

The problems before us are not merely of tremendous importance, but they are also difficult as to solution. They

frequently involve sharply conflicting claims and interests as between the Nation and the various commonwealths. Every State as well as the Nation itself should have a distinct and separate department empowered to deal with all these problems. It matters but little how it should be designated, though it would serve all purposes best to be known as a conservation commission.

But it is of vital importance that the commission should be given sufficient authority and funds so as to enlist the strongest and best men in the conservation service. That such commissions would have sufficient work and that from an economic standpoint they would constitute good investments, there is and can be no question.

True Conservation and Its Relation to the National Government As a Landlord.

BY CHARLES F. POTTER, DENVER, COLO.

That there is nothing new under the sun is an old and trite saying, and the wave of so called reform under a banner inscribed with the word "conservation," is but the repetition of a subject as old as the world.

Noah was a conservationist. By his wisdom and foresight he preserved to the world the beginnings of all things now in existence. The old ark would have little standing in the commerce of the present day, but it held within its confines the results of the greatest victory conservation has ever known.

True conservation does not mean non-use or the storing up of the things of this generation for the *possible* needs and demands of some future generation. True conservation in its highest and best sense means the beneficial use of what nature has provided, at the present time for the present generation without waste, so as to meet the needs of mankind in the great battle of life.

The Assyrians were conservationists, who conserved and utilized the waters of their land, and by means of engines, operated by hand, irrigated their fields and brought their crops to maturity.

The Babylonians were conservationists; they intersected many parts of their land with canals, some of them large enough for navigation, carrying water from the river Euphrates and Tigris to all parts of the Babylonian territory; and Herodotus, the father of History, tells us that by a wise plan of conservation, the Babylonian fields were made so fruitful that they yielded even three hundred fold through the wisdom and foresight of the Babylonian toilers.

Even the plan of National Control over the natural resources of the country and the exaction of tribute money from the citizens was first thought of and put into execution

so far back in ancient history that the gentlemen, who now claim to be the originators of this so called new doctrine of conservation and tribute paying, should be ashamed to claim that distinction.

History tells us that in Asia, long before the dawn of modern civilization the Parthians and four other Asiatic tribes had developed their lands to a high state of cultivation by plans of irrigation and the use of the waters flowing from the great river called Aces; but the Persians as a conquering host swept down upon these tribes of Asia and by order of the King caused the clefts of the mountains through which the water flowed to be blocked up. And this, we are told, he did for the purpose of exacting large sums of money as tribute from the people before the waters were again allowed to flow upon the parched and arid land. In other words, the sovereign power exercised its sovereign will, to make the people payers of tribute, before they were allowed to enjoy the fruits of their own labor, in the conservation of the natural resources of the land in which they lived.

Conservation of the natural resources received attention in the history of the English people very early in the affairs of that nation; and we find in English history the first well defined plans for the creation of forest reserves.

When William, the Conqueror, by fortune of war, sat upon the throne of England, he conceived a happy thought, one which has been proclaimed from one end of this land to the other as the only Simon-pure copyrighted idea of the modern apostles of conservation, and while the methods of King William were more drastic in effect than the methods of today, we find some similarity in the principle of forest conservation at that time and the present.

When King William turned his attention to establishing forest reserves, he found many villages, with happy and contented people, who were utilizing and conserving the natural resources of the land, and thereby making a livelihood for themselves and their families. He set a Lord Chief Forester over all; he drove out the people; destroyed their villages; tore down their churches; and enacted laws which were written into the Use Book of that day declaring that

the forest belonged to the sovereign power of the King, and he who sought to enter therein should pay tribute to the kingly representative of that kingly nation, or be punished with death.

Thus we have the establishment of the first forest reserves, the withdrawal of public lands from settlement or use by the people without the consent of the people. A spirit of conservation, but not true conservation, a spirit fraught with death and destruction, a menace to the life and liberties of the people, a burden which multiplied and grew so burdensome that when the Declaration of Rights of the English people was made manifest in the Magna Charta, the iniquitous forest reserves were abolished, and the right of the people to settle upon the lands which rightfully belonged to them and to develop the natural resources, which had been generously provided by a wise Creator in their behalf, were pronounced in the following terms:

“All forests that have been made forests in our time shall forthwith be disforested; and the same shall be done with the water banks that have been fenced in by us in our time.

“All evil customs concerning forests, warrens, foresters and warreners, sheriffs and their officers, rivers and their keepers, shall forthwith be inquired into in each county, by twelve sworn knights of the same shire, chosen by creditable persons of the same county; and within forty days after the said inquest, be utterly abolished, so as never to be restored; so as we are first acquainted therewith, or our justiciary, if we should not be in England.”

From time to time in England at later dates in the exercise of the so called kingly prerogative the rights of the people were trampled upon until in the time of Edward, the I, the evil of forest reserves had reached such a point of oppression against the common people that they rose en masse and compelled him to reaffirm and re-enact the former laws and to turn back again to the people the public

lands, which he and his kingly ancestors had lawlessly seized upon and created into national forests.

Other nations of Europe have felt from time to time the evil effects of a centralizing power concentrating under the dominion of one individual or one department vast areas of public lands, which have been used, not for the best interests of the people, not under any plan of true conservation, but as a yielding plan of oppression to exact tribute for the misuses of profligate royal families.

As early as the Sixteenth Century we hear of a "timber scare." John Manwood, an Englishman, published in London during that century a book relating to the establishment of forest reserves; and tells us something about the efforts made to preserve the timber and the contempt with which many of the inhabitants of England viewed the forest reserves laws at that time. He says; that the woods and timber tree within the forests should be especially preserved to be in readiness when the king shall have need of them, for the slender and negligent execution of the forest laws had caused the destruction of many deer and great quantities of wood and timber, and furthermore the want of the execution of the forest laws had caused them to grow into contempt with many inhabitants; and the forests were in danger of greater damage and injury from the people.

So we see that forest reserves in their relation to the conservation question present no new subjects for consideration. It is all part of an old, old story told over again and again in the history of the world. There is not a man within the sound of my voice who does not believe in true conservation, there is not an intelligent business man in these United States, who does not seek to practice from day to day in his business the principles of true conservation. We all seek to conserve that which we have and to bring about the greatest profit and the greatest good from the things in which we are dealing whether they be the natural resources of the country or the manufactured products brought forth through the ingenuity of mankind.

Not an idea has been advanced in the present day conservation question, or in the presentation thereof by the

apostles of conservation, which has not been made the subject of serious thought, consideration and action by the legislatures of our states, and in many cases the higher principles of true conservation are embraced within the tenets of our State Constitutions.

As applied to mining and to the production and use of minerals of all kinds, whether it be the precious metals or the fuel products, the question of conservation demands our serious consideration. The miner has always been the pioneer; he has blazed the trail and established all the paths of civilization in this country of ours west of the Original Thirteen States; he has been the fore-runner of the railroads; and has established the settlements which brought the railroads into our Western country; he has made possible the settlement of the valleys and plains by the agriculturist and the stock-raiser; and has made a profitable market for their products. By his industry and energy he has saved this nation time and again from financial panic and distress; he has added billions of dollars of wealth to the world without taking a dollar of it from his fellow man. He has builded the foundations of many cities, and reared above such foundations the spires and domes of prosperity, which today would have no existence, were it not for the industry and labor of the miner. He had paid either directly or indirectly a large proportion of the taxes which have maintained for many years some of the most important commonwealths of our country. And the products of his labor turn the wheels in all the marts of industry from one end of our country to the other. The products brought forth from the bowels of mother Earth by the miner who seeks the precious metals will not burn up, cannot be destroyed, and will remain a lasting monument to his honor and glory until the end of time. The products brought forth by the miner of industrial metals makes possible the habitation of man upon the earth and carries the commerce of the world. The products brought forth from the fuel producing mines are consumed but in their consumption they add glory and wealth to the world's industries, and through the ingenuity of man, crown the glory of commercial success.

And now let us see what the modern apostles of conservation seek to do for the benefit of the miner by national legislation.

In an address delivered at St. Paul Minnesota at the time of the meeting of the National Conservation Congress, the former Chief Forester of the United States in preaching the Gospel of Conservation said:

“As to our minerals, those still remaining in Government ownership should not be sold, but should be leased upon terms favorable to their development.”

This doctrine I maintain is an unwise one; it is opposed to the best interests of the American people; it is against the doctrines and principles of an enlightened nation, established under a democratic form of government. It is a doctrine unnecessary in any plan of conservation and bears no relation to the subject of true conservation.

Under the existing mining laws, which allow the miner to secure from the government a fee simple title, millions of dollars have been invested in the mining industry and great cities and states have been built up and peopled by industrious, energetic citizens.

This proposed plan of making the miner a tenant of and tribute payer to the national government, while having no part in any plan of true conservation, is not a new idea in the history of this government. It will perhaps be interesting for us to review the history of mining upon public domain, particularly with reference to the lease-hold question.

In the early days of our nation our law makers had naught to guide them but the experiences and laws of foreign empires and monarchies. When they turned to Europe for guidance they found many expressions of sovereign power and the principles of regalian ownership which pervaded the entire system of the law in Continental Europe, with the single exception of Russia. Continental Europe had in its turn sought precedent among the laws of the Romans and Athenians, where regalian rights were exercised, where the mines were worked under the constant sur-

veillance of public officers, on condition of paying to the sovereign power one-tenth of all the miner produced.

This principle of national ownership of mines, at least those of precious metals, has prevailed to greater or less extent in the history of all monarchies and empires, where the principle thought of the reigning power has been to exact tribute from the common citizen; for the maintenance of a centralizing power and in a measure to impress upon the citizens the importance of a kingly prerogative.

While Russia does not assume to exercise regalian control, or ownership of mines, it has established a system of taxation, rigorous, expensive, exacting and oppressive. Each miner is permitted to search for minerals, to work the mines, and to assign to others the right to work them, but the government exercises a supervisory control over the work and collects exorbitant tribute.

Under the principles of the Civil law the ownership of all lands was vested in the State, and all the mines of gold or silver in public lands belonged to the State or Sovereign as a part of its patrimony. Naturally, therefore, the systems of Continental Europe followed the principles of the Civil law.

By the rule of the Common Law of England, which became the established law of our Country by adoption, the owner of the soil owns all beneath it. In England, however, they have what are known as "Royal Mines," being mines of gold and silver which are the exclusive property of the Crown.

In many of the royal grants to the Colonies, forming the Original Thirteen States, there was reserved a fixed proportion of all the royal metals discovered. And when early in the history of our nation Congress was confronted with the problem of dealing with the mining interests, we are not surprised that, having before it the example of Continental Europe, the Royal Mines of England and the reservations of Royalties contained in the grants to the Colonies, it should attempt to establish a leasing system and thereby compel the citizens of a free and enlightened republic to pay tribute to the nation.

In the ordinance of May 20, 1785, for the disposal of lands in the Western territory, it was ordered that there shall be reserved,

“One-third part of all gold, silver, lead and copper mines to be otherwise disposed of as Congress shall hereafter direct.”

The mineral resources of our country were, at that time, little known. The precious metal regions had not yet been discovered. The lead and iron territories of the Mississippi region were almost entirely within the domain of France and Spain. The copper region of Lake Superior had by treaty with Great Britain come into possession of the United States; and the reserving clause, which I have quoted above, shows how little the Congress of the United States knew at that time of the possibilities of this great country in its mineral wealth; and indicates also an existing doubt as to the policy of the government when disposing of its mineral lands.

On March 3, 1807, an Act for the sale of certain lands, now embraced within the states of Ohio and Indiana, provided that lead mines might be leased by the President of the United States for a term not exceeding five years. This inaugurated the policy of the United States of leasing mineral lands.

From time to time, as the country was slowly developed, our law-makers felt their way carefully along different lines of policy, seeking to determine some wise plan for the best interest of the people in this disposition of its public lands, and with reference to the mineral therein contained.

February 8, 1823, the House of Representatives, by resolution, asked for information in regard to the mining regions of the West. The President in reply transmitted such information as he, at that time, had. This information was very meager, and related only to lands containing iron, copper and lead.

By Act of March 3, 1829, Congress conferred upon the President authority to sell as other public lands the re-

served lead mines and contiguous lands in the state of Missouri. This inaugurated the policy of the United States of selling its mineral lands.

On February 6, 1839, the House of Representatives passed the following resolution:

“Resolved, That the President be requested to cause to be prepared a plan for disposal of the public lands having reference as well to the amount of revenue to be derived from them, and their value as public property, as to the equitable claims of individuals upon them; and that he communicate to Congress all the information in the possession of the Treasury Department relative to their location, value, productiveness, and occupancy, and that he cause such further information to be collected and surveys to be made as may be necessary for this purpose.”

Under this resolution the President caused the territories of Iowa and Wisconsin to be explored and the minerals already developed in the other Mississippi states to be examined and inaugurated a system of lease-hold and reserved from sale more than a million acres of public land supposed to contain lead and other minerals. This system soon became obnoxious, unsatisfactory and unprofitable, and President Polk, on December 2, 1845, in his first annual message to Congress in most emphatic language exposed the fallacy and uncertainty of a leasing and withdrawal system, and demanded a change.

That part of the President's message to which I refer is most interesting in the light of the plans now proposed by the apostles of conservation, and reads as follows.

“The present system of managing the mineral lands of the United States is believed to be radically defective. More than a million acres of the public lands, supposed to contain lead, and other minerals, have been reserved from sale, and numerous leases upon them have been granted to indi-

viduals upon a stipulated rent. The system of granting leases has proved to be not only unprofitable to the government, but unsatisfactory to the citizens who have gone upon the lands, and must, if continued, lay the foundation of much future difficulty between the government and the lessees. According to the official record the amount of rents received by the government for the years 1841, 1842, 1843 and 1844 was \$6,354.74, while the expenses of the system during the same period, including salaries of the superintendents, agents, clerks and incidental expenses, were \$26,111.11, the income being less than one-fourth of the expense. To this pecuniary loss may be added the injury sustained by the public in consequence of destruction of timber and the careless and wasteful manner of working the mines. The system has given rise to much litigation between the United States and individual citizens, producing irritation and excitement in the mineral region and involving the government in heavy additional expenditure. It is believed that similar losses and embarrassments will continue to occur while the present system of leasing these lands remains unchanged. These lands are now under the superintendence and care of the War Department with the ordinary duties of which they had no proper or natural connection. I recommend the repeal of the present system and that these lands be placed under the superintendence and management of the general land office as other public lands, and be brought into market and sold upon such terms as Congress in their wisdom may prescribe."

This may be considered a fairly correct statement of what we may expect if the government of the United States turns backward sixty-four years or more and adopts a policy with respect to its mineral lands, which was tried and found wanting.

By the Acts of July 11, 1846, and March 1, and 3, 1847, Congress made radical changes in the methods of disposing of mineral lands on the public domain, abolished all leases, as unsatisfactory, unprofitable, and dangerous to the best interest of the government and substituted a system of cash sales.

What was the result of this change in the policy of our national government? The prospectors and miners flocked to the Western states and sought for the precious metals; they were no longer bound by a law which made them servient tenants of an exacting landlord. On the contrary, as free American citizens, they could go upon the public domain, search for, find and develop the precious metal and other minerals, and they knew that if successful the harvest would be their abundant reward and all mankind would profit by their success.

Within a year after Congress had repealed the leasing laws John W. Marshall on January 19, 1848, discovered gold in California. Prior to this time, copper, lead and iron had been the minerals for which the laws were made; but now that gold had been actually discovered on the public domain, it was thought necessary that new legislation should follow.

On the 4th of March, 1849, President Fillmore was inaugurated, and in his first annual message to Congress in December of that year, he said:

“I also beg leave to call your attention to the propriety of extending at an early day our system of land laws, with such modifications as may be necessary, over the State of California and the Territories of Utah and New Mexico. The mineral lands of California will, of course, form an exception to any general system which may be adopted. Various methods of disposing of them have been suggested. I was at first inclined to favor the system of leasing, as it seemed to promise the largest revenue to the government, and to afford the best

security against monopolies, but further reflection and our experience in leasing the lead mines and selling lands upon credit have brought my mind to the conclusion that there would be great difficulty in collecting the rents, and that the relation of debtor and creditor between the citizen and the government would be attended with many mischievous consequences. I therefore recommend that instead of retaining the mineral lands under the permanent control of the government, they be divided into small parcels and sold, under such restrictions as to quantity and time as will insure the best price and guard most effectively against combinations of capitalists to obtain monopolies."

The leasing system has proven a most pronounced failure and years of experience culminating in the evidence of two presidents should be sufficient to demonstrate the fact that further experimenting along this line would be both unwise and unprofitable.

Following President Fillmore's message several attempts were made by Congress to enact mining laws, but from 1849 to July 26, 1866, local usage and regulations governed mining camps and towns and regulated the size and conditions under which mining claims were developed.

In 1848, when gold was discovered, the population of California did not exceed 15,000. In 1850 it was 100,000 and thereafter the average yearly increase for five or six years was 50,000. There was no territorial or Congressional form of government, the mining laws of the local mining districts were sufficient, and during no similar period in the history of any part of the world, have vast treasure vaults been opened up and millions of dollars added to the wealth of the world solely under the supervision and control of the common miner and prospector.

Under the local rules and regulations adopted by the miner, the wants and necessities of a great industry were protected and made secure. Prospectors under this code

of laws, with pick, pan and shovel on mountain side, on the plains, amidst winter's rugged grasp or under sunny skies, in the quiet nooks and flowery ravines of the lower slopes of the Sierras, or on the shores of the broad Pacific, were safe and secure in their labor and toiled on as safely protected in their property as if in the midst of the highest civilization.

These laws protected and controlled the possession and provided for the distribution of hundreds of billions of dollars of property, and affected the people of a half million square miles of territory. They governed and controlled the citizens on the public domain in California, Oregon, Nevada, Colorado and all the adjacent territory of the Great West, and all this practically without the cost of one dollar to the National government.

With these conditions before it, Congress could act with intelligence in framing laws and knew that the hearty pioneer could be depended upon to govern and control the Great West, free from exacting conditions of landlordism or the obnoxious bureaucratic domination of departmental regulations.

On July 26, 1866, after the prospectors and miners had lifted from the matrix of nature, golden treasures exceeding in value one billion 54 million dollars, and had poured it into the lap of a grateful nation by means of that much added wealth in the hands of its citizens, Congress passed a mining law which declared:

“The mineral lands of the public domain are free and open to exploration and occupation by all citizens of the United States.”

The miner was allowed to patent his mining claim and secure free title from the government, and after years of experience the leasing system was considered obsolete and unworthy of consideration, in dealing with the mineral lands of our country.

Under this Act of 1866, as amended by the Act of 1872, the western half of the United States has prospered and grown until today it presents an object lesson of prosperity

otherwise unknown in the history of the world, and offers still greater possibilities of development.

To change all this, to run after old gods in new disguise, to foster upon the American people a system of servitude and landlordism would cast a blight upon the great industry and cause but a repetition of the mistakes and experiences of former administrations in the early history of mining in the United States.

We are told by those favoring the leasing system that if such a system becomes operative, by the passage of certain bills now before Congress or others which are being prepared, the government will only exact a nominal tribute. In fact, only twenty per cent of what the honest miner may be able to take from the soil by hard labor and the expenditure of much money. No provision is made in any of the plans of the apostles of so-called conservation to return to the miner any part of his losses, they do not propose to place a National tax upon the grain raised by the farmer or the cattle raised by the stock man. They do not propose to tax by this leasing system or otherwise, any other class of citizens in the public land states except the miners, and have no plan whereby this tribute system will be extended to the mines of states other than those containing public land. They recognize the fact, that an attempt to impose such a tax would be clearly unconstitutional.

In the matter of taxation the constitution of the United States recognizes two classes, direct and indirect taxes and lays down two rules by which their imposition must be governed, namely, the rule of apportionment as to direct taxes, and the rule of uniformity as to duties, imposts, and excises.

A tribute such as is now proposed in the nature of a mineral tax, must be either a direct tax or in the nature of an excise tax. If a direct tax it cannot be levied directly by the Federal government but must be apportioned among the states, leaving each state to make the collection, and such a tax should be apportioned among all the states.

If the tax can be considered an impost or excise tax, then it must be levied by the rule of uniformity upon every mine in the United States; in other words there must be a general excise law upon the subject.

It is maintained by some who favor the leasing system, that the constitutional provision I have above referred to, has no reference to the leasing of the public domain, and there are some decisions of the courts which tend to sustain this theory but however this may be, the imposition of a leasing tribute upon the mining industry would cause at this late date, an unfair and unequal distribution of the burdens of government. Let me illustrate this fact. One mining district in a state producing coal, is all owned by private parties. Another coal district in the same locality is upon public land, and its mines are operated by lessees of the government. They are obliged to pay the government tribute while the owners of the other mines, their competitors in business have no such tribute to pay. The competition is sharp, but the lessee of the National government must obtain from the consumer twenty per cent more for his coal in order to make the same percentage of profit as his competitor. There is one alternative however, which under these conditions presents a solution of the problem. That is combination creating monopoly: As the consumer pays the bills, the two coal producers harmonize their interests and instead of the consumer receiving his coal at a fair market price he has to pay the additional twenty per cent tribute and the producers of the coal divide the profits.

Without the leasing system the danger of such combinations is much lessened, every producer being upon the same basis, the chance for honest competition is much better and the consumer profits accordingly.

There can never be under the proposed leasing system either a uniformity or equality in taxation, the power to tax implies the power to destroy, the lessee of the government would be at the mercy of every change of the administration, and by past experience we know that the terms and con-

ditions of any lease promulgated by the government would be exacting, onerous and in many cases oppressive.

A question which I have not heard discussed in connection with this subject, is what disposition will be made of the tribute money collected from the miners and others if the leasing system becomes operative. Since the creation of large reservations upon the public lands, the industry of mining has been seriously impaired and prospecting to-day is out of date. The greater part of the mountainous region of the West where mineral is most likely to be discovered, is now contained within the borders of forest reserves, and it is possible, that this leasing system may be aiming at a revenue to sustain the vast empire of forestry. I am led to suggest this because of a statement made by the president of the American Forestry Association at its annual dinner last January. He said:

“Whether the money spent to preserve the forests on the water sheds of the Appalachians comes from an appropriation from the National Treasury, **or from the revenues of the existing forest reserve in the western states**, the East and South have the right to ask the same attention to their development, as has already been given to the West.”

The Appalachian forest reserve plan is undoubtedly familiar to you all, it provides for the purchase of millions of acres of land along the Appalachian ranges near the Atlantic coast for the purpose of creating an immense forest reserve. The estimated cost is from thirty million to one hundred million dollars, and this the president of the forestry association, suggests shall be paid from the revenues of the western forest reserves. In this he has the support of those who are backing this proposed leasing system. What a nice plan it would be to have the miner and prospector who operate in the forest reserves buy this immense eastern game preserve, for the benefit of our neighbors on the Atlantic coast!

Your committee on resolutions honored me by making me chairman of a sub-committee, to take up and report to you, through the general committee, resolutions relating to the conservation question. Our labors were not easy, we have spent the greater part of several days and nights in giving this question the closest possible attention and the results of our labor come before you in the resolutions which have been reported favorably by your committee and which are now before you for consideration. We have done our best, and sincerely trust that our labors have not been in vain.

I take this means of thanking my associates for their valued assistance in this work, and of thanking the members of this Congress for the attention they have given me in presenting the views of our committee upon the question of conservation.

Effect of the Conservation Policy in New Mexico.

BY DR. HARVEY M. SHIELDS, DAWSON, N. M.

Mr. Chairman, members of the American Mining Congress, Ladies and Gentlemen: I feel a little diffidence in speaking upon this matter because my life and its affairs are not concerned all the while with the practical things and the development along material lines of the Territory of New Mexico. I wish it were so that I might be able to speak with more authority; and yet so deeply am I interested in New Mexico, and so much faith have I in its present and future and so much sense of gratitude over what it has already achieved that I surely would be remiss in the performance of my duty if I did not accept the invitation of the Chairman and speak on behalf of New Mexico, again.

New Mexico has had in the past certain things that have impeded its progress. Perhaps it might be said that the large Latin element in the Territory has not made for its development very rapidly, and certainly that would be the case when we think of development in Anglo-Saxon institutions. And yet today in New Mexico the Anglo-Saxon people are in control, and there are no people within the confines of New Mexico who are more pleased with this fact than the Latin people themselves. If there were any occasion for discouragement along material and other lines in New Mexico on that account, that cause is rapidly disappearing.

But there is another matter that has restrained development in past years, and that is the fact that for a long while a great many titles to property were not sure, and I think it was due to the very chairman of this meeting this afternoon that in Congress steps were taken whereby a court was established that could deal with the land titles in the Territory of New Mexico, and the result of the work of that court has been the settlement of the titles to the old grants

that came over to us from the Mexican government, and so no longer in New Mexico is there any danger of valuable properties that might be transferred being delayed in their transfer and their development retarded. But it would seem to me that over-conservation in New Mexico just now would be one of the most serious things that could happen. New Mexico has depended in the long years past, just as Arizona has, and so much of the southwestern country, upon that brave individualist who was willing to go out at self-sacrifice and bestow the very best of himself to the search of what might be hidden somewhere in the heart of the land for the public welfare and for the sake of his loved ones, and New Mexico must for many years to come depend upon that same individualist, and I do not see how, if over-conservation takes place, it would be possible for the material things that are to be found high and deep and broad in the great Territory of New Mexico—I do not see how it would be possible for these things to be located if here and there and elsewhere throughout the Territory there should be a great space of land plastered over with the conservation principle. I do not wish to condemn conservation in New Mexico so far as it may be wise and sensible and unselfish and patriotic, but it seems to me that any sort of conservation in New Mexico that is going to cause any of the vested interests in New Mexico today to tremble, any sort of conservation in New Mexico that is going to keep the poor man from going to seek what he has the courage and the bravery to seek and find—that that sort of conservation has no place in New Mexico and has no place in the Southwest. (Applause.) I am such a believer in American character—and I have been in America many years,—I am such a believer in the honesty and the uprightness of the average business man and of the captain of industry, and I am such a believer in the quality of the manhood and the character and the patriotism of the business men of New Mexico, the larger and smaller ones, whom it has been my pleasure to know somewhat since the year 1878—I have so much confidence in the general character of the manhood of the people

of the Territory of New Mexico as to believe that there is not now any abuse of the legal opportunities that have been given for acquiring properties and developing them along proper lines, and I do not believe, as I know the character of the manhood and of capital in New Mexico, that there is the slightest intention of taking advantage of any of the present laws in any undue way.

I happen to know something of the effect of one of the Forest Reserves, for instance, upon those who have wanted to establish homesteads in that vicinage. I do not wish to condemn the Forestry Service. I believe the Forestry Service in this same Reserve and throughout New Mexico is doing splendid work, but it is a difficult thing for a man who is in a federal office always to maintain his balance and poise and not to assume a little too much authority with reference to individuals here and there who may be seeking what they have a right to seek under the laws of the United States; and I know of one instance like this, where a young man, with his life all before him, who had already put himself to considerable expense in connection with his homestead, which was encircled by the forest reserve, and who had filed upon this land before the forest reserve was established—I know that in this instance the various rangers told the young man that there would be no need of his going to any further expense, for he could not possibly secure his homestead.

I know of another instance where a homestead patent was withheld for nearly three years, where the homestead was located in the heart of the Forest Reserve, having been filed upon before the reserve was declared, and there was a real attempt made to prevent the patent issuing, though every provision of the law had been scrupulously and conscientiously carried out. I do not know of any other instances, I never have inquired for others, but I know of those two instances where the forest ranger was altogether too officious and went beyond the limits of the duties he was appointed to perform; and if the whole country is filled up with unnecessary forest reserves, if it is made difficult

for the individual to file upon his homestead, the effect is that in a large vicinage close to the forest reserve the homesteader is restrained because he does not know when the forest reserve limits will be extended; and it is not merely within the limits of the Forest Reserve itself that it is found impossible for the poor man to find his home and develop some land or some property, but the effect is that in contiguous territory men are restrained from filing for fear there will be a forest reserve declared eventually and they shall have their time and trouble and expense for nothing, and though they have fulfilled every requirement of the law there will be such delay in the issuing of a patent or such influence brought to bear against the issuance of a patent that the man becomes completely discouraged and refrains. These are only certain concrete instances I know of where too much conservation has the effect of hindering the development of the Territory, of conditions, that have just as much moral right to develop today as the territory in Massachusetts or Pennsylvania had once the right to develop in the long ago. I do not see why it should be made harder from this time on for men to develop the southwest than it was for men to develop the east, the north and the south. I do not see why we should ever drift as a nation away from the principle of encouraging the individual, of encouraging the home, of encouraging the small owner, and if now and then there are abuses, if now and then men file upon lands for any purpose whatsoever that is ulterior and not honest, let the individual case be punished; but why should the general public and the generality of men in their endeavors to do the best for themselves and their loved ones be hindered by some great policy like that of over-conservation. I love my country, I believe, just as much as Mr. Pinchot or any other man in America, and my ancestors fought the battles of the Revolution and fought the battles of the Civil war, and Daniel Webster was my grandmother's kinsman, and General Shields was my father's kinsman, and I am just as much of an American as anyone who has ever stood for ultra-conservation; I believe that the man who is op-

posed to over-conservation has as much right to express his opinion and to feel that over-conservation is an unwise and unpatriotic thing as those men have to follow their convictions, and I trust that it will be without acrimony and without mutual distrust that we shall consider this very, very important matter. For myself, I have known New Mexico and Arizona somewhat since the year 1878, when I was a boy of about eight years of age, when my father came to New Mexico in the government service as a physician and church service as a clergyman, and in which he has lived ever since; and although I have spent but nine years in New Mexico myself, and nine years in Arizona, in all this while I have had the privilege of learning more and more about these two great Territories and about their possibilities and their advantages and opportunities, and I personally should not like to see either Territory or either prospective state hindered in its lawful development by any such policy as that of over-conservation.

Conservation as it Affects the Oil Industry of California.

[The effect of the federal public land policy upon the development of the oil industry in California was the subject of a discussion to which the following speakers contributed:

Hon. Gifford Pinchot, Washington, D. C.
Mr. Thos. A. O'Donnell, Los Angeles, California.
Hon. Frank Short, Fresno, California.
Hon. S. C. Smith, Bakersfield, California.
Hon. Chas. A. Barlow, Bakersfield, California.
Mr. Thos. E. Gibbon, Los Angeles, California.
Mr. Geo. E. Whittaker, Los Angeles, California.
Mr. S. C. Graham, Los Angeles, California.

The speeches of these gentlemen appear here in consecutive order.—
Editor.]

ADDRESS OF HON. GIFFORD PINCHOT, Washington, D. C.

Members of the Mining Congress, Ladies and Gentlemen: I want to talk, with your permission and your indulgence, a little first about conservation in general before dealing specifically with the observations I was able to make in the oil fields east and west of Bakersfield, and what the present situation seems to me to require.

And before I begin, I want to ask your indulgence also to permit me to congratulate the American Mining Congress and the whole mining industry on the appointment as chief of the new Mining Bureau, of that one man in all the United States who is best fitted for the work—Dr. Joseph A. Holmes. (Applause.) His appointment to my mind is one of the greatest triumphs of a good cause that I have seen in recent years, and I think every friend of good government, and every friend of good mining, should join in rejoicing over the appointment of such a thoroughly good man.

Now, about conservation in general, I have observed in the course of considerable experience, both with the friends and with the enemies of conservation, that the more specific you make any statement as to what conservation is, the more difficult it is to attack, and that the majority of the attacks made on conservation relate, with singular uniformity, to positions which the conservation people have

never taken, have never thought of taking, and when they are stated, do not approve. In other words, the great bulk of the opposition to the conservation policy, as I know that opposition—and I think I may say without any vainglorious boasting that I have had as long experience in the opposition to the policy for which I stand as most people have—I think the majority of that opposition is based on a misunderstanding or a misstatement, sometimes, I am sorry to say, intentional, but usually accidental, misunderstanding or a misstatement of what conservation really aims at and what it really proposes, and what actual facts are. That must be my excuse for reading to you briefly a statement which I have made once or twice before, and which I think is representative of what I believe along the lines that conservation actually does stand for; and I want to say a few words about what it has to do with the mining industry, and then about oil; and as I have tried to make this very exact, I hope you will excuse me if I read it.

The fundamental principles of conservation are few, of course, and simple, just as the fundamental principles of any large and important matter are. One of the first is this, that the natural resources and natural advantages belong to all the people and should be developed, protected and perpetuated directly for the benefit of all the people and not mainly for the profit of a few. That is the fundamental basis with which there can be no public quarrel.

Another is that the natural resources still owned by the people, which are necessities of life, like coal and water power, should remain in public ownership, and should be disposed of only under lease for limited periods and with fair compensation to the public for the rights granted—another fundamental proposition, which, as a rule, it is not easy to attack.

Now, as to our waters, every stream should be made useful for every purpose in which it can be made to serve the public. A proposition on a broad plan is needed without delay for the development of our waterways for domestic supply, for waterways, for irrigation and drainage.

In this whole question of dealing with our waterways, the policy that has been adopted by the friends of conservation is that the people of the whole country ought to be allowed and ought to be trusted to apply ordinary business common sense to their property; that there is no reason why the same foresight, the same provision for the future, the same making of best use of everything we have, should not be applied by the whole people to the property of the whole people, than that it should not be applied to the property of one man. It is a perfectly simple, common-sense proposition. As to waters, we want to know what we have and how they can best be used by the whole people.

As to water power, we have had and are still having and we shall continue to have for some time, a very lively contest. There is now forming, as I have often said, a great combination of the power interests and of banking interests throughout this country. The city in which we are met has had very practical experience of what that means. Those of us who have been making this fight elsewhere, know well enough that when you attack water power, you attack the central financial interests of the great financial centers; and we have been doing what we could, and we propose to keep right on doing what we can, to prevent the passage of this great necessity of life into the hands of a few people who will be able to monopolize it.

There has been a great deal of loose talk in connection with this water power question. For instance it has been said over and over again that the United States Government is trying to take away from the States, rights which the States now have. Nothing could be farther from the truth. The men who believe in federal control of water power sites now in federal possession, simply stand for the continuation of that separation between the rights of the State and the rights of the Nation which our experience hitherto has led us to make, and they resist the idea that resources now in the hands of the federal government should be turned over to the states. The aggression in this matter, you will observe, comes not from the Nation but from the States.

Just one other point about this water power question—It is so simple that it seems difficult to realize why it should have been so largely misunderstood. What we are trying to do is not to prevent development, nor even to check development; we believe in development of water power most thoroughly and completely. We release that there is no saving so great to be made anywhere as the substitution of power made from falling water, which is perpetual as long as the sun shines and the rains fall and the forests exist—substituting that kind of power, which is renewable forever; for power derived from coal which once used is gone, never again to come back. The conservation people want the water power developed; but the fact that they want it developed, ought not to be made an excuse for the desire of the men who want to monopolize those powers, realizing that when they do control them, they control a fundamental necessity of life. That is no reason why we should give them the powers forever and for nothing in accordance with their demands. So we say that every water power site now in the state or federal control, should be held so, and should be disposed of only under lease for a limited time and with fair compensation to the public.

In the development of our waterways, the co-operation of the state and the nation is essential for the general welfare. The conservation people deprecate this fight or this attempted fight between state control and national control. What we want is co-operation—not discord. As Mr. Roosevelt said at St. Paul, it is very clear that except for the intervention of the special interests which have raised this question, the question itself would never have come up; the states and nation would have continued to co-operate harmoniously.

Now, as to the forests. The forests necessary for the public welfare should be in public ownership, such as the present forests, the White Mountain National forest, and the State forests of New York, Pennsylvania and other states. Protection of forests against fire is the first duty of forestry on the part of the states and nation alike.

There is nothing else which compares with that. The way to stop fires is to get men to them as soon as they begin. To maintain a forest fire patrol by the states and by associations of citizens who own timber lands, is absolutely necessary. The protection of forests is the first step in forestry, and reforestation is the second. The forests should be taxed on the land value alone. The timber crop should be taxed when it is cut, so that private forestry may be encouraged. Nothing else has stood in the way of forestry so much, with the exception of forest fires, than the fact that the timber crop has been taxed every year while it was growing through many years to reach its crop at the end. Every other crop is taxed once except the forest crop, which is taxed annually during the whole period of its growth.

The private ownership of forest land is a public trust, because what is done with a forest affects not only the owner, but it may affect hundreds of thousands of other people living at a long distance away. The people generally have both the duty and the right to regulate the use of such lands in the general interest. Every acre of land should be put to whatever use makes it most valuable. Our lands should be put to prosperous homes, and to that end land monopoly and excessive land holdings must not be tolerated.

We believe that the most useful citizen of this or any other country is the man who owns the land from which he makes his living; whether it be mineral or agricultural, the man who owns the land is the best citizen of any nation. We want that encouraged to the utmost. Settlement must be encouraged by every legitimate means on all the land that will support homes. Thus the land suitable for cultivation in the national forests should be disposed of to actual settlers, but never to speculators. The first and most important thing to do for our agricultural lands is to preserve their fertility by preventing erosion. The rights to the surface of public lands should be separated from the rights to the minerals beneath it, and each should be held separately and subject to separate disposal. That means that there

should be no more passage of great areas of coal lands into private ownership through the homestead law, no more temptations along that line to locate lands for some other than the ostensible purpose. Of course the timber and stone act should be repealed.

Now, as to our minerals, those still remaining in government ownership should not be sold, but should be leased upon terms favorable for their development up to the full requirements of our people. Let me say right here that another of the mistakes so commonly circulated about conservation is that we stand in the way of development, that we intend to stop development, that we would like to save, for example, all the coal now in the earth and keep it for a hundred or a thousand years so that by and by somebody somewhere may have the use of it. It is only necessary to state such a proposition to have it made clear that no body of sensible men, as I hold conservation people to be, could advocate any such doctrine. We believe that the present generation has a full right to the fruits of the earth and the minerals under the earth—all they need, and when they need it; but we do not believe that that means that we have the right for our pleasure or for our gratification, but not for our necessities, to waste the basis of prosperity to those who are coming after us.

We believe that this generation has exactly the same responsibility to the generations of American citizens who are to follow us, has exactly the same responsibility that all mothers and fathers have for their children. We stand in no different relation to those who are coming after us, and we may fairly ask that the people of this nation may accept that responsibility and act upon it; and I think that is a proposition that it would be difficult to controvert. So let me make it plain once more, that we believe in development and we believe in development now, and we don't believe in useless waste.

Now, until legislation for the proper disposal of our minerals can be enacted, temporary withdrawals of land containing oil, coal and phosphate rock are required to pre-

vent speculation and monopoly. I would like to make it clear that no one who has been advocating this policy believes these withdrawals should be otherwise than temporary. It is the clear duty of the federal government as well as the states to provide for legislation to conserve our mineral resources. That is where your new mining bureau, with the creation of which this Congress has had so much to do, is going to be extremely useful. The special interests, of course, are enemies to both the nation and the state in these matters. I can think of no more easy way for some of the great special interests to get a chance to do their work, than to have a lot of muddy water in the boundary between state and nation where they can fish, and I think that has appeared to some of you. So we need state conservation commissions and a national conservation commission in order to make public the facts.

These are some of the main things for which the conservation people stand; and I think you will agree with me that that is a fairly reasonable and sensible platform, and which attempts to do injustice to no man. It does contain, in some respects, a new point of view. It does mean that we recognize the right and duty of the people to handle the resources differently from the way in which they have been handled in the past; but it does not mean, for example, to use an illustration from the service with which I was pretty familiar—it does not mean that the forest service has been attempting or has ever attempted to interfere with the mining industry. What the forest service has done, and has, I think, rightly done, barring of course individual mistakes, was to recognize that the laws as to mining in the national forests, must be enforced, and that it was the duty of conservation to stand like a rock against the men who have attempted to get possession of the lands in the national forests for purposes other than those of legitimate mining, and I have no apology to make whatever.

We want to help the legitimate miners. We have made mistakes in attempting to do it. I judge it would have been impossible for so large an organization, covering so huge a

field, with so vast a body of men as yet not thoroughly trained, to avoid mistakes. The fundamental fact is that we have tried steadily to beat the man who has tried to steal lands under the cover of the mining laws, whether he wanted them for a sawmill, summer resort, fish pond, or whatever other purpose; if he didn't want them for legitimate mining, it was our business to see that he didn't get them; but the fact that there was so much howl against that sort of thing is evidence of the fact that we have succeeded to some extent.

Now, don't let me be misunderstood. We have meant that the Forest service should assist the honest miner in every way, and I think it is meeting with some success. We want to see the timber and mining regions kept for the legitimate miner, and we propose, so far as we can, to stop the men who design to come in under the mining laws and cut and ship out of the country, the timber that is needed when men come into the country to get out the mineral that is actually there.

If I keep speaking about the forest service, you will excuse me on the ground of old habit.

I want to make it clear also, where we speak of the permit system in connection with the development of minerals, that there is no intention whatever of doing that one thing which must not be done—that is, interfering with the prospector. We realize fully the rights that the prospector has and should continue to have; and any system that may be adopted,—and I know that many of you will agree with me that the mineral land laws are in some respects misfits—whatever improvements in the law may be made, whatever change in the policy may be adopted, the fundamental system must be this,—that the prospector must have his work made easier rather than harder. Furthermore, under the permit system, there must be in this country, as there is elsewhere, the facilitation of mineral development instead of the checking of it. There is a very admirable report by the Geological Survey of the way in which this matter works in Australia, which I can commend very highly to your con-

sideration. But let me add this, whether you agree with this system that I have outlined or not, however much some individuals among you may disagree, I think it is perfectly fair to say this, and I say it absolutely in no sense as a threat, but merely as a statement which I believe to be true and which I submit as worthy of your consideration—the people of the United States have got these conservation ideas in their heads; they have adopted them very completely in some respects; they are adopting them daily more and more completely in others. They have ascertained, as we all have who know anything about it, that the opposition to the conservation policy is, in the majority of cases, thoroughly interested in its origin; and in the second place, rapidly diminishing, both in effectiveness and in quantity. Here and there an individual lifts his head to protest against a policy clearly in the interests of the whole people. Gradually the heads that have been lifted are dropped. Fewer and fewer will be lifted in the future. There is no question, I think, but that this policy is here to stay, and, as I have said, I make this as no threat. I make it as a statement that I think you ought to consider. Now, if that is true—and I question whether any candid reading of the newspapers for any length of time will permit any man to be in doubt as to that fact—why isn't it the wise and sensible thing for mining men, instead of standing against the policy determined upon by the whole people, to take hold of this proposition as to the development of mineral lands while it is young? It is merely to compel all industries to be conducted on lines in harmony with the public welfare. Why isn't it a wise and sensible thing for you gentlemen to do, as it would be for any other similar body of men, instead of following in a procession which cannot be stopped, to get in the lead of the procession and steer it where you would like to have it go?

There can be no doubt that equitable and satisfactory adjustment of these matters can be made, fair both to the mining men and to the government and to all the people; and there can also be no doubt that those arrangements

would be better, more workable, more satisfactory all around, if the men who know most about the mining industry gave their help, their direction, their advice and their assistance in formulating the plans that are to be carried out; and so far as the conservation people are concerned, I can assure you with all sincerity that we will gladly and eagerly welcome your assistance and advice in having this great change of policy so carried out as to do you no harm and to do all the people the most possible good.

Now, ladies and gentlemen, just a word more in closing, about this oil matter. At the suggestion of the Sierra Madre Club of this city, I went to Bakersfield recently, and went over the west side oil fields and had a look at the east side oil fields, and spent two of the most interesting days that I ever have spent, and gathered certain impressions, the result of which I should like now very briefly to lay before you. I had as good a time as I judge a man must always have under the guidance of those pleasant hosts who were kind enough to show my brother and me about; and I am sorry that some of the things I have to say will probably not meet their views, just as I am glad that some of the things I have to say will probably meet their views. I hope the good will be more than the bad. At any rate, these are the conclusions to which I came after consulting many men, both in the oil fields and here, and after having had a chance to see things for myself:

First, men who have made bona fide locations in this oil field previous to withdrawal, and who made discovery after location—I am not going to discuss with those who are not familiar with the oil situation exactly what this means, but the oil men will know—men who made bona fide locations previous to withdrawal, and who may discover after location, and proceed to develop in good faith and in accordance with established decisions and usage, should get their patents whether or not the land is subsequently withdrawn. (Applause.)

This seems to me to be so clear as to need absolutely no discussion. A man who has gone into the field in good

faith, made his developments as best he could under the local conditions, and in accordance with the decisions and local usage, certainly ought to get the reward of his labor. That is what the mineral land laws are for; and I have no doubt that that matter will be adjusted in that way if justice is followed, and I see no reason why justice should not prevail.

Now, oil lands not now located and still in government ownership, should remain so. The present withdrawal should be maintained long enough to secure legislation adapted to the needs of the oil industry and the conservation of this great resource. Such legislation should, in my judgment, provide for a prospect permit, say for three years, during which time the prospector should be secured in the possession of a reasonable amount of land, on the condition that he goes ahead to prospect and develop his holding. Give him a fair chance and let no man interfere with him during that time. Upon discovery, the government should issue a permit entitling the discoverer to a permit for twenty-five years, long enough to make it profitable in accordance with the conditions. The permanent holder or lessee should, under the regulations, pay a royalty to the government in an amount small enough not to hamper or prevent development. These withdrawals are not intended to be permanent. A permanent withdrawal of oil lands within the land grant of the Southern Pacific, would probably benefit the railroad instead of the people, and should not be maintained. In my judgment, a withdrawal should last long enough to get suitable legislation. Finally the government will not do its duty if it does not exhaust every possible means at its command to attack the title of the Southern Pacific Railroad to mineral lands in the oil fields, and vest the title again in the people of the United States. (Great applause.)

I am glad you think that is right. I think so very strongly.

That is in substance what I have to say about conservation. My final word is, before you condemn a conservation

policy, find out whether it is what the friends of conservation assert, or what the enemies of conservation impute.

ADDRESS OF MR. THOMAS A. O'DONNELL,
Los Angeles, Calif.

I am a thorough believer in the citizens of the United States having an opinion of their own and expressing them whenever they may desire to do so. While my opinions in all respects do not agree with those of Mr. Pinchot and Mr. Graham, who have just spoken, I hold both of these gentlemen in the highest respect. It gave me a great deal of pleasure to sit here last night and listen to Mr. Pinchot. I was very much surprised and much gratified by his statement regarding what he recommended for the disposition of the oil lands in the Midway field that are now already being operated. I was much gratified to learn from Mr. Pinchot himself what this great word "conservation" meant in many of its details. I am not altogether sure that the meaning as interpreted by Mr. Pinchot is in accord with the practical demonstrations that have taken place, so far as it relates to the oil business. I understand it is not their intention, in any sense of the word to do anything that will retard the development of any of the resources of this country; but it is my opinion that some of the actions taken and recommended by them have done it. Whatever their intention was, it has done it. I am quite sure that Mr. Pinchot, least of all the men with whom I have come in contact on this subject, believes in doing an injustice to anybody engaged in this business or in any other business, but I believe that the agitation and the uncertainty and the rulings that the departments have thought wise to make recently, have done an injustice; and no matter what the opinions of these gentlemen are regarding the great wrongs that perhaps have been perpetrated from time to time upon the people of the United States by a disregard of the laws, I myself believe that the oil operator, the petroleum operator, the man who drives wells and produces oil or prospects for oil and obeys the laws provided for the regulation of such opera-

tions, is an honest citizen working for the benefit of this country and he should be entitled to the investments that are already made upon these lands, and he should be protected and should be allowed to go ahead and perfect his titles that were inaugurated and started under the system that has existed in California for thirty years and not have this changed on a moment's notice.

Now, men will say that perhaps these great rich oil operators that go up in these fields have grabbed a lot of the public domain and it should be taken away from them and given back to the people. There is generally a mistaken idea, in my judgment, by the public who are not interested in these matters, regarding the wealth of most of the oil men. Every man that owns an oil well is not a John D. Rockefeller, and particularly in California; most of the men who appear before you in the public prints and otherwise are merely representatives, using the capital of thousands of men scattered throughout the whole country for the development of those resources, and it is not only the particular individual who is called to your attention who will suffer from this chaotic condition that we are now suffering from in these fields, but it is the thousands of men scattered all over this state. I will venture to say that there is no industry represented in the West today that has a larger percentage of the whole people interested in it than the oil industry of California has.

I am not going to try to discuss problems of government or of conservation or of matters leading up to these propositions; I do not consider that I am capable of doing so. There has been some question raised as to the advisability of the oil men joining in this Congress for the purpose of having an expression of opinion regarding our troubles. While I differ with some of our associates engaged in the same business regarding this subject, I am free to confess that I do not see why this Congress cannot, without recommending specific legislation, take some recognition of our trouble and pass a resolution referring this to the future disposition of these so-called—I am going to call them *natural*

resources of this country. The miner and the oil man are in the same identical boat. The general policy that has been proposed by the people who advocate a radical change along these lines is proposed for the metal miner as well as the oil miner. I know this on account of my recent difficulties in Washington. I do not think there is a man in California today but recognizes that the withdrawal bill in its original form was an outrage to a great many fixed interests in this state and should not have been passed. Mr. Pinchot, I understand at that time—in fact, I read a number of his interviews regarding the questions advocated—stated that the bill was not even satisfactory to him in its original form because it excepted the metal miners. He is consistent and honest in that. I believe if any of you asked Mr. Pinchot today he would tell you that he believes the metal miners should have been included in the original bill and they should have been no exception. Now, the idea of these men is that the Secretary of the Interior is always going to be a good man, and you turn it over to him and he is going to do the right thing. He will not recommend these withdrawals unless you are doing wrong. But sometimes they change their minds about the kind of a man they get in there, and I do not believe any of these interests should be trusted to any one individual, whether it be the President of the United States or the Secretary of the Interior or anyone else.

One of the great features, in my judgment, that convinces me of the impracticability of the working out of the leasing system is not alone the royalty involved or the amount of revenue that the government might get out of this, but it is the general tendency of our government to drift towards a bureaucratic supervision of the industries of the West. I met men in Washington who were, in my judgment, men of character and influence and honesty of purpose in all of their activities in connection with the department work, and I asked one of them who was at the head of one of these departments, while before the committee, when he was recommending a leasing bill and some provisions that he would put into that bill to regulate the busi-

ness out here—I asked him why he overlooked the kind of casing that we used in our wells, and he said that was an oversight, that he would have it attended to. (Laughter.) The idea is, the supervision of the oil business from a practical standpoint from Washington, with the cumbersomeness of our government in general and the inability to do it as the individual can always do it on the ground, is one of the greatest menaces that the future production of oil is up against in California today, and anything that tends towards a lease, with all the provisions that we try to inject into leases of our land to one another, and of the government doing this, and of attempting to get out of it on a competitive basis all there is in it, as the individual does here on the ground, would be absolutely impracticable, and it would not work, no matter what you think about what the government should have out of it. The individual, it is true, who owns the patented land on the ground here will make leases to me and to other operators, and I will go and lease it from him, and I will do it gladly, and sometimes perhaps I will pay him considerable money for that privilege; but I venture to say that you place the lands of California on the auction block after the prospector or the developer has found there is oil there, and you will soon find the oil monopolies owning that land if there is any possibility of getting it. And I would like nothing better, with a long sack filled with money, than to go into the Kern River field in competition with the entire population of California, and I venture to say that I would get a big proportion of that land if it were put up for competition. The difference between the individual and the government is that these lands are not all similar in character. The man who owns a piece of land will see that it is developed in time, even if he has to change his rules and regulations or the kind of lease that he desires to make with the individual for the operating of it. The government, no matter what they do, has fixed rules by which these things can be handled, and no general fixed rule will ever get out the full value of an entire oil field and still perpetuate its development.

I am going to reply to Mr. Graham in a kindly sort of way, if I am able to do so, and surely mean it that way. All of the advocates of our present system of acquiring the government lands are men who have been up in these districts and are somewhat prejudiced, perhaps, for their large holdings in these matters. I am going to plead guilty to a certain extent in this respect, because I believe that most men do, perhaps, unconsciously and with the best intentions in the world, allow their private interests to interfere with their judgment. I do not believe that most men do this knowingly, and while I will confess that perhaps this has some bearing on my judgment on this subject, I am not at all sure that some of the strongest advocates that we have of the other policy who are engaged in this business might not have some fixed interest already established of years duration that might in a way be benefited by the stagnation of the development of these government lands. Now, mind you, I am not saying that it is my judgment that this is the case; in fact, I believe emphatically that it is not; and I believe that some of the gentlemen who are doing this and taking a great part in public affairs of all kinds believe that they are doing a great act for the public good.

Now, coming back to the American Mining Congress, it is my judgment, gentlemen, that through your Resolutions Committee and through a conscientious study of our problems and a comparison of them with your own, it is possible for this body as a national body to recognize some of the troubles and injustices that have occurred in the oil industry in California and to pass intelligent resolutions affecting them, not specific in their nature. You have your troubles and we have ours. But it is my idea that the future plans that the extremists propose for this government to adopt regarding the oil lands, they will also propose for the metal miner, and to that extent at least I personally could join you heartily in a resolution that we were not in favor of it.

The principal thing with us today is the recent rulings of the land department which have been very disturbing in

their effect. I am not at all sure that perhaps some radical improvement should not be made in some of our mining laws that would benefit the individual operator if that can be done. We have passed through a period of some thirty years in California operating these lands. It has been the custom and practice for a number of locators to go together and locate a certain area, differing in its extent, but there is no case where it has been possible, as far as I have been able to see, for the individual himself to drill wells and take the chances that it is necessary to take upon these public lands; consequently, there has been a great mass of transferring of interests interlaced in all kinds of manners, for the purpose of organizing companies, financing them, and getting the necessary money to go ahead and do this development work, and now, without any notice, with a custom that has existed for years and years, the government now states that we cannot make these transfers except after discovery. This in itself is a great menace to the fixed interests now existing in the great oil fields in this state.

ADDRESS OF HON. FRANK H. SHORT,
Fresno, Calif.

Mr. Chairman and Gentlemen of the convention: A good many years ago, when I started into the practice of the profession of the law, I thought that if I could succeed in the way that lawyers are supposed to succeed, and could establish a practice and could gain the confidence of my fellow citizens and those having large investments and small investments, that I would thereby be estimated as somewhat more worthy, or at least a more successful American than if I had failed. But I find now that it is wholly impossible for me to appear before a public gathering and speak upon the interests that are represented in that gathering, with any other reputation or standing—at least, so far as those who oppose my views are concerned—than that I am a mere corporation lawyer and am representing industries inimical to the general welfare, and therefore that I ought to be heard grudgingly and reluctantly and in no manner be-

lieved or accepted. It may be that the men of the western states who are engaged in the expenditure of time and money and energy in the development of the resources of those states are committing offenses against nature and against law, and it may be that their lawyer who, in an open and public way, and whose methods and whose position is neither secret nor questioned, is doing a dishonorable act, but, so far as I am concerned, so long as my own conscience is clear, and so long as I have the honor and satisfaction of feeling that I am doing something in my day and generation to add to the general growth and development and prosperity of the country, my adversaries are welcome to wear their wings and their crowns and their harps and to decorate me with hoofs and horns as much as they please.

Gentlemen, I particularly like to speak to mining men. I am, as you may suspect, what is called an individualist, and that means that I am no sort of a socialist—either sociological, national or otherwise. I believe that God made man for the good of the world, and man made society for his own benefit, and I believe man should serve God and the purpose of the world, and that society should serve man and not man society.

It is ordinarily true that what we call the large interests and the corporations like to put on what is called the soft pedal, but I guess you would not have to think back more than twenty-four hours before you could remember the soft pedal pedaling in unexpected places. I want to speak to you frankly and say this, that, to my mind, there are no gold miners, there are no silver miners, there are no copper miners, there are no coal miners, there are no oil miners in this matter; they are simply American miners all standing for American miners' rights.

The slogan that has been promulgated—and I will come right to the subject—is that “the remaining resources of the nation belong to all of the people of the nation.” That sounds good. That lets you and me all in, don't you see? And if the remaining resources of the nation belong to all of the people of the nation, each of us has a one-hun-

dred-millionth part without working or getting busy about it at all. But, my friends, if the remaining resources of the nation belong to all of the people of the nation, there was a time in the history of this country when all the resources of the nation belonged to all of the people of the nation, and "to their children and to their children's children forever," and I am afraid that some of our uplifting friends have abstracted a portion of the common asset and are now coming after the rest.

My friends, the slogan sounds good, that "all of the remaining resources of the nation belong to all of the people of the nation." That slogan has two vices. One of them is that it is not true in law or in fact, and the other is that if it was ever true it would be too late in the history of the nation to assert it now. The Supreme Court of the United States, when I was young, used to decide the law of this country, and it used to control Congress, and it used to control the executive; and allow me parenthetically to say that for all time the Supreme Court of the United States will determine the law, and the legislative branch of the government and the executive branch of the government will enforce the law according to the law as determined by the courts, and the people will see that they do it. The Supreme Court of the United States decided that the United States held the public land in trust for the people of the several states, to be disposed of at nominal prices, to private ownership, as rapidly as possible, and in order that the government might retire as a land owner from the several states as soon as it could. That was decided seventy-five or eighty years ago, and ever since that time the United States government and the Congress have proceeded in accordance with that trust to undertake, not always as well as it might, to follow out the injunction that the public lands and resources of this nation belonged to the people of this nation, to be distributed to private ownership and to private development and to private control as rapidly as possible. That is the law, and it may be that my friends can reconcile their consciences to a violation of a trust to a

good end, but I don't believe that any good ever comes of violating a trust or violating the law.

A good many people do not like to hear legal discussions as much as they ought to, but all of us can understand the justice and equity of a thing. Now, let us assume that the United States owned all of the public lands for the benefit of all the people. In other words, that Uncle Sam is the father of four sons, and in order that our geography and our history may be straight, we will call them East, and North and South and West, and Uncle Sam, being mindful of his trust, and a father generous to a fault, proceeded to distribute to his three elder sons, East, North and South, all of that portion of that estate that was coming to them and their children. They tell us that in the doing of this Uncle Sam was sometimes unequal, incapable, and even, sad to relate, dishonest; but that he did distribute it nobody denies. That East and North and South and their children have all of the portion of the common inheritance coming to them nobody denies. Now, the sunburned portion of Uncle Sam's estate did not look very good and it naturally fell to the younger brother, West. You know Bill went West and little Willie stayed in the east; and the more I become acquainted with Bill and the more I know of little Willie, I am glad that Bill came west and little Willie stayed in the east. After the younger brother, who was a good traveler and an energetic lad, began to show the resources and possibilities of that portion of the common estate of Uncle Sam that had been left over to him, a great moral uplift and sense of deep righteousness pervaded the breasts of East and North and South, and the more they thought about it and prayed over it the worse they felt about it, and finally they went to Uncle Sam and said: Father, you have surely sinned against heaven and in the sight of all men. Recklessly and carelessly you have distributed to us and to our children all of that portion of the estate that is coming to us, and you have squandered the common inheritance. Now, the only moral atonement we can conceive of is that you sieze that portion of the estate that be-

longs to our younger brother, West, and hold it for the benefit of the whole family. And they said, these righteous brothers: Since, Uncle Sam, you have shown yourself incapable and dishonest in the distribution of our portion of our estate to us, out of the deep and abiding affection for our younger brother, in view of your admitted dishonesty and incapacity, we will appoint you his guardian and trustee without bonds forever irrevocable. And the only injunction is that you shall pay to us, your elder sons, the equal one-fourth of the income of our younger brother's estate annually for all time.

If there is anybody in the audience that has any objections to the historical accuracy or logical application of this little allegory, they will now stand up and state their case or forever afterward hold their peace.

Now, my friends, this is a very serious and a very big question, and, for myself, I appreciate that I cannot look at it as some other men can. I have never had the opportunity of being born with great wealth so that I could have it heralded to the world what an enormous sacrifice I was making by going into politics, instead of spending my father's estate, to serve the people that I love so well. My education was acquired on the western plains of this country, riding a broncho and driving in steers and fighting my way along the paths of toil and industry, and therefore I look at the things from an out of door way. I had my education in that university of the outside world, that college common to all of the people, and the history, the traditions and the progress and the development of my race and my country looked good to me.

We are told—and I am coming around to finish up by talking about the mining end of it—we are told that the federal government must take and hold all of the remaining assets of the nation to prevent monopoly. They say that this asset and this estate belongs to all of the people. That is to say, it belongs to a hundred million of people. Now, do not get excited or scared. There are going to be no individual dividends declared right away. There will be a big roll of

federal officials to pay, and I am putting my money on the pay-roll all the time, and no dividends will ever come at all. But, if in the course of human events, there ever should be any dividends, they will be paid into the public treasury to reduce the taxes of one hundred millions of people. Allow me to suggest—and I ask you to take this home with you—that if enough money is paid into the treasury of the United States to lift much of the burden of taxation from the backs of an hundred millions of people, some of us will get stoop shouldered carrying the load and paying it out of the resources of ten millions of people.

My friends, there are several kinds of monopolies. The federal government, under the constitution of the United States, without relation to the public lands, has the right to control every monopoly within its jurisdiction, with all of the authority of all of the people. Every state in this union has all of the powers of the government, so far as any industry or monopoly situated within that state is concerned, to control that monopoly and prevent its oppressively charging the people. Hitherto, in the history of the world, in the use of coal and wood and oil for fuel, there has been no means whereby the hand of the government could be placed squarely upon the source of heat and light and energy and power and commerce, and so the law of supply and demand has operated through the history of the world. But in these later years there has come the developing of electric power, and with that development there has come different conditions, and every drop of running water in this state, if appropriated to the use of the people of this state in a public use, it is subject to the regulation and control of the state as to rates and service. It is the first time in the history of the world that the laws of a country could put its hand upon the forces of heat and light and energy and commerce and say that there could be no monopoly, except as the law might say was fair and reasonable and just to the people. My friends, I wish simply to make the statement and pass on, the United States government has all the power that is conferred upon it by the constitution of the

United States, and no man stands for a broader exercise of those powers than I do. Every state in this union has all of the powers' of the United States for the regulation and the control and the protection of the people within that state from monopoly. But neither the United States government nor any state has any governmental powers except such as are delegated to them directly by the people through the constitution of the United States and of the several states; and any man that says that governmental functions, governmental control, should be exercised through the public lands or the state lands denies the sovereignty of the people and the constitutional government and would shear them of their power and put it wherever the landlord lived.

So far as I am concerned, I have an abiding confidence in the capacity and the ability of the people of this country ultimately to work out self-government, ultimately to protect themselves from monopolies, but let me suggest that history records that there are two classes of monopolies, private monopolies and official governmental monopolies. One of the highest functions of government is to control private monopolies, and they can be controlled and they will be controlled in this country, not, perhaps to the satisfaction of the man who wants to agitate and preach, but to the satisfaction of the man who wants a square deal and fair earnings for everybody.

But there is another kind of monopoly, a monopoly that can not be controlled by the people, a monopoly that has fastened itself upon every civilization in the history of the world, a monopoly that is responsible for four-fifths of the exactions and poverty and human suffering that have afflicted the earth, and no man can read history and deny it, and that is where the powers of government and official control have become vested with the resources of the people and the opportunity to earn a living. So far as I am concerned, I do not stand and say to any corporation that I represent that they are above the law. No corporation that I represent is in politics; no corporation that I represent is trying to elect any officials; no corporation that I represent is trying

to have any more than an opportunity to do honest business and assist in advancing the wheels of progress and the machinery of government in the right direction. If that is not honorable in this country, then I want to say to you that the energy and resourcefulness of the American people will soon pass away. They tell us that the people of this country, under the free institutions of this country, have destroyed more than the people of Europe in the whole history of Europe. I say that none of us stand here to defend the wanton destruction of any resource. Resources are for use, to be passed otherwise unimpaired to succeeding generations. But my friends seem only to see our infirmities and our faults and the burned-off spots in the forest. If it is true that we have destroyed more than the people of Europe in all the history of that ancient country, I undertake to say that it is also true that the free people of this country, taking the advantage of their energy, labors, freedom and opportunities, by their inventive genius, by the irrigation and reclamation of lands, by the development of electric power, by the application of machinery and commercial advancement, have added more to the power, the potential resources of the world and elements for the support of man, than the people of Europe, Asia and Africa have in the whole recorded history of the world.

It is all right to have the blues and jaundice some of the time, but we ought to get over it once in a while.

Now, my friends, I wish to say to you—and I appreciate your courteous attention and will not exhaust your time—I want to say to you a few words, to the small man in the mining industry. I have said for a long time that this so-called halo of conservation would over-shadow every individual that sought in connection with the public domain to develop or advance or better his own condition or to develop the community in which he lived. I want to say frankly that I do not yield to any man in the idea that government should be honest, and that business should be conducted with integrity. I do not look down upon any honest man, and I allow no living man to look down upon

me, and I say to you that in the development of the resources of this country I have confidence in the integrity, the sane governmental sense of the American people, and that they will develop its resources and protect themselves from monopolies and from wrong.

Now, a word about the mining industry. The whole question hinges upon whether or not the United States government does own the public lands as a selfish proprietor in the interest of all of the people, whether they work or whether they play, and therefore, if it is true that the United States government has thrown away our millions and our millions in donating lands and passing them without price to private ownership—the farms and forests and mines and the untold wealth that lies to the east of us—then let us meet the situation frankly. If it be the duty of the United States Government not to give away what belongs to the whole people, not to encourage the industries of California at the expense of what belongs to the whole nation, but to adopt Mr. Graham's anti-monopolistic idea of putting up the oil lands to the highest bidder in order to give the poor man a chance, that would be a great opportunity, wouldn't it, for the poor, small man? Let us meet the issue frankly. The United States Government is either a government or a landed proprietor; it is either a trustee or a selfish owner; and I have heard a good deal of talk about the miner here and there who has made his fortune and his stake and gone smiling to his luxury and to his repose. I think those that take the other view and want to follow these strange, new roads to old conditions such as exist in the Old World, where the government beneficently allows for rents and taxes and royalties the common people to toil that the government may have navies and standing armies, and taxing the resources of the people,—I say, that those who want to follow these strange new roads to those ancient conditions can follow them without me.

I once tried a lawsuit in which the question was whether the explorer who had pinned his faith on the shaly, oily look of the desert and spent his money for oil was en-

titled to the land or whether the fellow that had traded the United States Government some rocks and stumps was entitled to it, and in that case I had to meet the argument that you have heard today, that the miner was getting something for nothing. I speak of the miner because he is the greatest individualist in the world. He says goodbye to society and to school and to home, frequently to wife and children; his luxury is in the woods and in the cabin and in the lonely gulch, with a supply of sour dough and bacon and coffee, and he works and toils; and we have seen him cross a continent and develop on the Pacific shores a resource that saved this Union in the hour of peril and gave back a restored nation. I have seen, not many years ago, when the oil miner had the sympathy of his friends and the ridicule of his enemies and was throwing his money away, and the geologist told him so, but he went on and developed for you and for me, for the industries of this state and nation, a resource that will add more to the potential wealth and advancement and prosperity of the people of California than all the gold of '49 and ever since.

Those who desire to can envy the individual who leaves all behind, and, following the instincts of the best spirits that have ever peopled the earth, goes out and seeks to better his condition. I am not saying that everything has been ideal; I am not saying that everything has been right and just. You know these sudden conversions just before election and just before Congress meets never do me much good. We will be just about as good and no better than we have been in the years gone by. Let me say right here that I believe all of the honesty and all of the integrity and all of the virtue on earth comes from the home, the fathers, the mothers, the schools and the churches, and the virtue that is rock-ribbed enough to survive the reforms and abuses of politics is the highest state of virtue in the world, and a political reform is a "brainstorm" and nothing else.

I want in conclusion to say to you that I regard this—there are great men on the other side of this movement, and the murmurings against the constitution of your country

and against the decisions of the courts are merely that the growth and the development of your civilization has crystalized for the purpose of perpetuating and sustaining the individual man and giving the law control only to the extent of preventing him from wronging or injuring society, but it has not enthroned society. The doctrine we have today is that the prospector and the advance agent of industry shall be no more, and that all shall be done by the government, that all of the resources of this nation shall belong to all of the people. Think seriously what that would have meant if the resources of this nation had remained in Uncle Sam. He would have been richer, stronger, more corrupt and autocratic than Rome ever was in the days when the provinces paid tribute to her. The only salvation of the country is to preserve the integrity, the property rights and the individual capacity of the individual American man.

I appeal from the academicians who would destroy the base of our civilization, who would deny the verity of the constitution, who would take from the individual his incentive and his opportunity. Let me say to you that it does no good to pedal softly; you can not take from the benefit of the many without shearing the few, and you can not take from the benefit of the individual man without impairing the incentive and opportunity and the American spirit of the individual man.

I have seen the mining prospector, as he followed the lure of gold go far into the mountain; I have seen him develop the oil, I have seen him within the Arctic Circle wrest from the frozen placers of the north the wealth that would forever have remained hidden except for his initiative, industry and sacrifice. I have seen that same miner as his hair turned gray and his head bent low. I have seen him when the loving and regretful fingers of time were tracing the inevitable record of the years on his withering frame. I have seen him work on and hope on until hope and labor went out with the last rattle of his breath. My fight is, my friends, to preserve those conditions, those liberties, those

opportunities, to cut off special privileges and not create them. In reply to the theorists of today who would say that all our history is an error, that all our government is founded upon a false theory, I would invite them to review the history, the growth and the progress of the race to which we belong; to appeal from them, to the records of Congress, to the decisions of the Supreme Court, to the constitution of our country; and I would as we see the race to which we belong stand high upon the hills of civilization and progress that that appeal could be taken from the judgment of man to the throne of heaven, "for the judgments of God are true and righteous altogether."

ADDRESS OF HON. S. C. SMITH,
Bakersfield, Calif.

Friends and Fellow Citizens: If we knew that the resolutions just presented would be adopted we would probably adjourn today's session and devote ourselves to pleasure, or else take up some other subject, for if it be the pleasure of the Congress that it shall not express any opinion upon the oil mining industry it would not be very profitable to take up the time in its discussion. But I have been asked to say something about the oil industry and will do so as briefly as I can.

Logically, the subject ought not to be here, for boring a hole in the ground and pumping a fluid out is not mining in the general meaning of the term; but geologists classify oil as mineral, and the public land laws, which engage a large portion of your attention here, recognize oil bearing lands as mineral lands, and therefore it comes within the purview of the general subject of mining matters.

The history of the laws with reference to oil development and the acquisition of oil territory is very brief. About fifteen years ago some enterprising citizen bored a hole in the ground and found strata of oil bearing sand on the public domain. There appeared to be no law exactly fitted to its acquisition, and Congress—I think somewhat hastily, perhaps—passed a short statute saying such land

might be acquired under the Placer Mining Act. Now, the mining laws are a little peculiar and different from other land laws in that they do not limit the number of claims which one may take up. The law has long allowed eight persons to join in making a placer location, and hence the practice grew up in this state, where the oil bearing public lands are, for one to take a group of eight names and locate a quarter section, and then locate the next one, and the next one, until very large bodies of land were brought under one claim and one ownership. When the President heard of that condition of affairs about a year ago he undertook to suspend the operations of the placer mining law as applied to oil lands and there was made what we understand to be the withdrawal order of September 29, 1909. There was a doubt in the President's mind, and also in the mind of the Secretary of the Interior, as to whether they had the authority to withdraw land from entry, which, in other words, is suspending the operation of an Act of Congress and the President therefore sought and was given what is known as the Pickett Act, which does authorize him to suspend the operation of the law or to withdraw certain lands from the market—not particularly oil lands alone but all kinds of lands and water power sites and public affairs of that kind.

Now, we are in this condition: Following the enactment of the Pickett law, he renewed the order of September 27th so as to be surely within the limit of his powers, and we now have a large amount of public land out of the market, and the question presented to this Congress, and which will be presented to the Federal Congress, is, upon what terms should it be put back in the market? I think there is no division of opinion in any quarter as to the virtue of restoring this land to entry in some manner so that it may be acquired, and development proceed. Commerce wants the fuel and the heat, and there it lies in the ground dormant and it should be brought out and given to the affairs of the world in such proper manner as we shall decide to be just.

Three propositions have been presented, as I have discovered, for the restoration of these lands to entry. First let me say a word with reference to the status of claims that have been initiated before the withdrawal. There is much distress of mind—and I knew it would follow—as to what is going to be the outcome of those who had initiated claims but had not yet perfected their entries. The Pickett bill provided that those who had entered in good faith and expended money in the search for oil and were in the prosecution of their efforts should not be affected by the withdrawal, which means, I understand, that they shall be permitted to proceed to patent in the old fashioned way; but we found in the meetings before the public land committee that there was every conceivable difference of claim, from the one on which a hundred thousand dollars or more had been expended down by gradual gradations to the very thin point where one had merely posted a notice on the land asserting his claim to it but had made no discovery of mineral. Now, evidently Congress could not very well strike a line and say all above this may be patented and all below shall not be. It is in the nature of an equitable matter that must be worked out very largely each case upon its own bona fides, and I doubt whether Congress can draw a line that would do justice to all cases without examining each case specifically, which of course can not be done. My suggestion on that point is this—that each one present his case upon the facts, and if any injustice shall be done under a general law then relief must be sought by some special act covering these special cases; and this general remark applies to the other class of cases where eight people have made an entry and subsequently conveyed to one or two persons and the department holding that those one or two persons can not make the discovery applicable to the eight claims. That question is in the category of a lawsuit at present, and I do not care to discuss it, further than to say that if it be not decided in a way that is equitable and fair to those who have made considerable expenditures then relief may be sought from Congress; and if I con-

tinue to be a member I shall gladly aid in the passage of legislation that will do justice to these people.

Now, there are three plans proposed for restoring the public land to entry. One is the leasing system, by which it is proposed that the government shall take possession as landlord and allow the citizens to go in and develop the property and pay to the government a royalty either in oil or in cash. I have never been quite convinced whether this plan aims at deriving a revenue from the government or whether it has in mind a supervisory power over the daily operations of the oil operator. I would like to say to the Congress at this point that, so far as my reading goes, this discussion as to leases, etc., applies to all kinds of mineral development. Eastern magazines, eastern speakers of much note, eastern publications of all characters are discussing this matter, and they use the term "mineral," not "oil." It is much the habit nowadays to send out a few questions to your Congressman and see whether he is for this or that or the other thing. Everybody's Magazine, which has some reading clientage at least, sends out a document containing nine specific questions to me asking this:

"If elected to Congress will you vote for Mr. Cannon for speaker?"—which does not enter into the mining question I guess:

"No. 8. For a bill to prevent the government from selling any more of its mineral deposits?"—that does not say **oil**, that says **mineral**. "The same to be leased at adequate rentals and for moderate periods." And the discussion that runs through the press and the public speaking I think in all cases refers to mineral as a general proposition, therefore this may interest the gold miner and the copper miner as well.

The second proposition is a long way in advance, and in a sense a continuation of this suggestion of leasing. It is being asserted by many eastern men and publications that the mining industry should be conducted along this line—that the operator shall be allowed a reasonable compensation for his time and his money and his effort, but that

“the velvet” shall go to the nation—shall go into the Federal Treasury. That is brought in under this very alluring expression—“for the benefit of all of us.” I think that is about my only chance to get in on the mining industry. (Laughter and applause.) I have lived in Kern County for twenty-five years, and have seen the oil development there, but have not felt any of it in my pocket, and I think this doubtful scheme for developing these things for the benefit of “all of us” will let me in perhaps.

The third proposition is old fashioned, and therefore unpopular at this time; it contemplates the patenting of mines after due process of work and development and the payment of a small sum, just as has been done in the past with reference to all kinds of mineral lands.

Now, let me examine these three propositions as briefly as I can, for my time is limited. If the first, the leasing proposition, be for the purpose of securing a revenue for the government, it is utterly under condemnation, because of its unfairness and inequity. If some one would come forward with a proposition to lay a tax on all oil development in the United States, or on all mineral development in the United States, that could be justified. At one time in the history of this government they laid a tax on all the aristocrats who rode in carriages. Nowadays that burden would fall on the poor—the very poor, because people in every day and ordinary walks of life ride in automobiles and flying machines.

Again, we laid a tax on everybody who raised tobacco or made whiskey or spirits of any kind, and we do yet, and I have no doubt that a law would be constitutional if laid on everybody who raises oats or who pumps oil out of the ground, and if the government were in need of revenue and seeking extraordinary fields for it and should lay a tax—I am discussing the leasing question now as a matter of revenue—should lay a tax on oil production in every state it could be defended on the ground of its equitableness at least; but the proposition here is not that you will single out a state, which would be an outrage; not that you would

single out a county, which would be a greater outrage; but that you shall lay this burden of taxation upon the even section and not upon the odd one. Men declare themselves hostile to the "special interests," and in the same breath they say, "Let us lay the burden of taxation upon the humble citizen who has five acres or ten acres or whatever his holding may be, but lay no tax upon the great railroad corporations who have acquired the odd sections throughout the country." It may be that the odd sections should be returned to the government if they are not entitled to them; I am not passing any opinion upon that, because I have not studied the question; but even then, as applied to the state of California, we would have this situation: If we gathered the odd sections back to the bosom of the government, speaking locally, we would lay a tax upon the oil industry in Kern and Fresno counties, but we would not lay any burden of taxation for any support of the government upon Santa Barbara or Los Angeles counties for there all lands are patented. Now, can we defend a scheme of taxation that reeks with inequality as that does? I say no.

Now, as to the second proposition—and that applies to all kinds of mining also: If you go in and lose, you lose; that is all there is to it; they forget you. But if you go in and win, find a mine or strike oil, why, you may have wages, a percentage, but Uncle Sam will take "the velvet." Can you develop a mine upon that basis? What about the prospector?

One of the greatest citizens God ever created is the prospector, God bless his courageous spirit! I hope he will live through all eternity; but I never yet have heard of a prospector who slung grub stake over his shoulder and took his pick and shovel in his hand and pushed his burro in front of him who was looking for wages and interest on the burro. (Laughter.) Now as to you gentlemen who come later and develop the mine. I think our eastern friends have a hallucination that every prospect is a mine, but I think I could get pretty nearly a unanimous vote in this audience that it is not. Will you go in and spend your thousands and

hundreds of thousands of dollars in the development of the mining wealth of this country on the prospect of a per centage on your investment? Men will build public service affairs, like street cars, etc., on a made-by-law profit, because they can see what the field is; but in this business of extreme hazard, both oil and metalliferous mining, who will go in, who will venture his fortune in the greatest and most important industry in the world, albeit the most hazardous, with the hope of reward of only a per cent fixed by law? If the proposition were not being presented by some very eminent and respectable publications, like the "Outlook" and other magazines of character, I should be inclined to say it was absurd and not worthy of the serious consideration of the American people.

As to the third proposition—shall the public domain pass to patent and let the American citizen continue to own in fee the property of which he is possessed?

That is the question. In order to understand the entire bearing of that question I must review a little of the history of the United States land laws—and first, before I do that, I want you to differentiate between the word "natural" resources and "national" resources. Our mines and our oil lands and our agricultural lands and our water powers are **natural** resources and not **national** resources. Uncle Sam does not own them; they are the gifts of nature to the people who enter in and possess them and make them yield to the needs and the blessings of all the people. And if we can break up the habit of calling these **national** resources we will have gone a long ways toward clearing the atmosphere and getting ready for final action.

Now, the public land policy of the United States from the beginning of the government has been not to make money, not to enrich the treasury, but to parcel out the resources of the country as nature's gifts to the individual. This whole scheme of government is founded upon the doctrine of individualism, and God grant that we shall never depart from it. We have said to the farmer; You may enter in and possess yourself of a small amount, enough to give

you a start in the world. We have said to the timber man, You may go and take a small acreage; we made no limit in the case of the miner, because the district organizations took care of that and said that one may have one claim or two, and regulated the amount; and under that system we have grown to be a great people, prosperous in our individual affairs and independent of everybody. Now shall we abandon that policy and resort to a scheme of tenancy where some one will be the overlord to direct our daily affairs and take from us the wealth which we create, which we dig out of the ground?

Now, I say the oil land law—and I will speak specifically of that at this moment—needs about one or two things. The placer location has not been satisfactory, because the location outran the discovery, and between the point of location and discovery there was not much security of tenure, and we need a law by which the citizen can go to some office of the government, I don't care which one it is, and make an entry of a reasonable acreage and be absolutely secure in his possession of that until such time as he may prove its character—two or three or five years, or whatever it may be—but he wants a title that he can go to court and defend—and then he won't have to defend it at all, for American citizens will respect his rights. We want a law which will enable you to go and enter a reasonable amount—the acreage to be worked out according to different conditions and circumstances—and then know that you have the rightful possession of that for such number of years or months as will enable you to bore the well and determine its character.

There are many items of detail that I shall not take the time to discuss. But I announce myself to be in favor of a law which will allow mining development of all kinds, including oil, to proceed along the old fashioned way of leading to a patent, that every citizen may have what he has and control it and dispose of it as every American citizen desires to do with that which is his.

I consider it exceedingly important that the oil operators and the business men and the people interested in the oil business of California should get together on some plan so that their representatives in Congress may know what to do, and may have the backing and the support of public opinion, and that quite unanimously.

ADDRESS OF HON. CHAS. A. BARLOW,
Bakersfield, Calif.

Mr. Chairman and Fellow Citizens: I expect that it is probably proper that one Kern county man should follow another, but my views as to the attitude of oil men, or rather the attitude we desire the Representatives of the Mining Congress here assembled to take, are very different from the views of my friend Mr. Fox, who preceded me. The oil men of California are simply asking for justice, and we feel that we can help our cause and strengthen our position, if we have our demands endorsed by such a representative body of men as I see before me. If we were trying to get anything that was not right, or if there was anything that we were trying to cover up or hide from you, then we might be inclined to refrain from presenting the matter to you and give an excuse that we feared that you might not understand it, but standing as we do for justice and fair play, we feel that a matter that is so simple and easy of comprehension as this oil problem will be easily understood by you; to feel otherwise would be to cast a slur on your judgment and intelligence that I would not like to be guilty of, and I would ask that you do not take the statement of Mr. Fox, to mean anything of that kind.

We believe that the attitude of the oil men and their views on the vital questions that need immediate attention and early adjudication are fully set forth in a short resolution which was adopted by the Kern County Board of Trade, of which I have the honor to be President. I have a copy of the resolution and with your indulgence will read it.

"Whereas, a large delegation of representative citizens met with the Board of Trade of Kern County at its regular meeting and pre-

sented their views as to a just and equitable solution of the uncertainties that now confront those who have been engaged in and are now active in opening up the wonderful resources of our County and State, and

"Whereas, it is believed to be for the best interests of all concerned that an expression of their views should be voiced by this Board of Trade; therefore, on motion of Mr. Hall, seconded by Mr. Paine, the following resolution was passed unanimously:

"Resolved, that we are opposed to any system of leasing of oil land by the government, as experience in this line has proven it to be a certain means of turning the control of these resources over to large aggregations of capital. That with two slight amendments to the present law, the right of all fair minded men will be protected and justice and equity meted out to all. The first should provide that all locations must be recorded in the general Land Office, and when so recorded, no other location can be placed upon that land, until it is proven by process of law, that the first location is null and void, because of non-compliance by claimant, with the requirements of the government. The second should limit the acreage that could be taken by any one man and provide a heavy fine and imprisonment for any violation of this provision."

"And it is believed at this time it is fitting and proper that we should express our conviction, that any citizen of the United States, who prior to the legal withdrawal of July 3, 1910, was engaged in acquiring title to oil lands under the laws of the land and the decisions of the courts, should be protected in his rights and patents issued to those who have earned them by faithful compliance with all such requirements."

With these two amendments to the law that has grown up during the past ten years, through court decisions and interpretations and rulings of the Land Office, every legitimate oil operator can get what he may be entitled to, and that is what he should have, and that is all any of them desire.

Mr. Smith has expressed our views, I think so cleverly, that I am not going over that ground, but there is one phase of the situation that I want to speak to you about. Recently we had one of the foremost men in this Conservation movement in our county and we showed him through the various oil fields, and while in the Midway Field, on top of what is known as "25" hill, about the center of the field, I pointed out to him the developed territory extending for 25 miles to the Northwest and then turned and pointed out to him that it extended a similar distance to the southeast and looking out over the valleys and hills to the northeast we could see development work extending over a territory more than 20 miles in width. In this vast extent of territory there are many flowing wells, producing from 5,000 to 90,000 barrels

per day, many other completed wells that were sanded up or capped in and lying idle, because the present shipping facilities were inadequate to handle the present production, and I asked him if it did not impress him with the conviction that the oil resources were almost unlimited; he replied "Oh, no, there is no such thing as a natural resource in unlimited quantities, and on one point I want to make myself clear, namely, that the Government, through some method or other, must absolutely control and regulate the amount of development of any of its natural resources." I will say right here, that we had been trying for two days to get some expression of opinion from this gentleman and this was the only one that I ever could get from him.

I am speaking of a representative man, and by the way, I will say that it was Mr. Pinchot, who is one of the most delightful and pleasant gentlemen I ever met in all my life, one of the most honest and sincere of men, whose friendship I prize highly and hope ever to retain, but he is not the practical kind of a man to offer a practical solution for the conditions that we are troubled with today.

Now just consider for one moment where this declaration would lead us to. The Government is to control the amount of development of oil; the Government shall say how much oil shall be produced; then the Government will have the power to fix the price of oil—for whoever controls the supply of any commodity fixes the price—and if we give the Government control of prices of products where will this lead us to? One administration will say that oil shall be worth and sell for one dollar per barrel and we will regulate the amount of development so that the price shall be one dollar per barrel. Four years later we have a new administration and they will determine that the price shall be 25 cents per barrel and so regulate the development that the price shall be 25 cents per barrel. What do you think of such a Government and such a system? We would eject into our economic system a false regulator of prices and when we do this we will enter upon a deplorable era in our National life. It will jeopardize our Government, in my

judgment, because nothing should regulate prices but the natural law of supply and demand and the evils that we have today and are suffering from most in this country, are caused by laws that are on the statute books, setting aside this natural law of supply and demand.

As we have some very able and distinguished men who are to address us and go into the details of these questions, I will not trespass upon your time any longer except to say, that all of us are conservationists. I am strongly in favor of conservation if you will allow me to define conservation. It reminds me a good deal of a story told by Governor Lind, of Minnesota, while in our office a few days ago. He was talking with a friend of his on the general topics of the day and finally said "Sam, how do you stand on the new questions that are attracting the attention of the people today." "Why," Sam replied, "I am a Conservationist." The Governor said: "Why are you a Conservationist?" Sam replied, "I am bitterly opposed to all these abuses that are so apparent to all people and that seem to be growing on every hand in all walks of life." The Governor replied, "That is good; what is your remedy?" Sam replied, "Why, Governor, I am a Conservationist." Now I listened to an address last night, and was deeply interested in it and I listened for some practical remedy or suggestion, and the only thing that could be gathered from the address, was that we are all invited to **get on the band wagon**. We were not told where it was going, but just invited to "get on the band wagon." And today, if I were asked to explain what the speaker stood for as a Conservationist and what remedy he offered to correct the abuses of today, that we all realize are so apparent, I would have to reply about as Sam did to Governor Lind, when asked for a remedy, "I am a Conservationist."

ADDRESS OF MR. THOS. E. GIBBON,
Los Angeles, Calif.

Mr. President and Gentlemen of the Mining Congress: Although I have in my time had some interest in mining, as I presume almost every Western man has, and I now

have some interest in mining; although I have had some interest in that particular kind of mining, the production of oil, and have some interest of that kind at the present time, I do not want to talk to the members of this Convention from the standpoint of a mining man so much as from the standpoint of a citizen of the United States:—a man who endeavors to do his duty toward his country and his fellow citizens, and whose chief interest in life is trying to provide for a chance for those who are coming after him.

Now, it is a very curious thing to me that the most strenuous opposition to the conservation program that the government entered upon some three years ago, has not come from the miner—the individual miner to whom the gentleman who has just taken his seat has paid such eloquent tribute. I have yet to hear a protest from those men, and I number a good many of them among my acquaintances. I have some acquaintances who have prospected the deserts of Nevada, Arizona and California for years with a burro for a companion and a pick for their implement of industry. I have not heard these men complaining of the government's scheme for conservation of natural resources.

The most serious complaints that I have heard or have read of, have come from men like the Guggenheims. They are absolutely opposed to conservation. I want to say right here that I do not agree with some of the ideas of conservation that have been enunciated before you, and I do not believe that the friends of conservation mean what some of the speakers would have you believe they mean.

I want to say further that I think it is an unworthy appeal to prejudice in treating a great cause to say to the Western people that you must not favor this idea of the government taking care of the public's resources because, forsooth, those Eastern fellows are a part of the government and they have used up their resources, and will get a part of your Western resources if you do not look out. Now, gentlemen, if we get right down to the cold legal facts of the case with reference to the Western resources owned by the government, they are these. I can imagine this sort of

a conversation occurring between a citizen of California and a citizen of Maine. The citizen of California says to the man from Maine, "You fellows have started something you call conservation, to get an interest in the public lands out in California. You know you are not entitled to any part of those lands: they belong to California and Californians." But the Maine man might say, "My dear sir, if you will read your history you will find that something more than half a century ago the then United States of America, which did not include California, and of which California was not a part, bought California from Mexico for a certain number of millions of dollars and my forefathers paid a part of the taxes that raised those millions of dollars that were paid for California. Now, when your territory was set up as a state, the government of the United States which had bought and owned it all said, 'As a state we will confer certain properties upon you, but we will retain certain lands within your borders. We bought those lands: we paid for them: they were paid for by the taxes raised by the national government from the people all over the nation.' We retained those lands: they were retained, it is true, to be used for the best interest of the public, but we still kept out and expect to use those lands for the benefit of all the public of the whole country."

Now, if the man from Maine were to say that and to say as one of the descendants of the man who paid taxes to raise the money that was paid to Mexico for California's territory, "I as a citizen of the United States at large, have an absolute property interest in those lands," he would not tell anything but the plain legal truth, and he would not appeal to anything but a sense of equity and fairness should he insist upon enforcing that property interest. But I do not understand that the idea of conservation means that the people of the East are trying to get their fingers on something that the government owns in this state, and keep anybody else that is entitled to it away from it. It is not that. I will tell you what I believe it is. My idea of conservation is that the government from now on proposes to

use the property that it owns for the best interest of all the people, and not for the interest of some favored individual, organization or interest. I want to differentiate right here. I want to speak first with reference to the oil lands because I propose to stick rather closely to that subject. The thing that makes oil important to us in California is the fact that oil means power. It is the only natural fuel we have in our state, and outside of our water, it is the only thing that nature furnishes us to get power from; and oil with us means power, and power in the present economic organization of the world means light and heat, and the food we eat, and the clothes we wear, and the material that goes to make our homes, and the furniture we have in our homes, and transportation, and everything that we have and use to make life bearable or desirable. Power is the one great factor, the one great force that moves the civilized world today, and oil means power to the people here in this part of the West. And by the way, right here while we are on the question of power, I want to illustrate how carefully our Uncle Sam has in the past acted as trustee for the individual, as the gentleman who preceded me has just told you. He says the supreme court of the United States has said that the government holds those lands in trust for its citizens. That is true. And he adds that in order to execute that trust the United States must make haste to transfer all of those lands to private ownership. Just here I may be able to illustrate what this may mean by telling you of something that came to my knowledge some time ago. About five years ago I was talking with a gentleman I knew very well and whom I liked very much, who happens to be very wealthy; a man who has handled not only many million dollars of his own, but many millions of other capital, which has its center in the City of New York. This gentlemen said to me, "I own," and he meant himself and the companies in which he owned the controlling interest, "I own water rights in the Sierra Nevada mountains extending for about three hundred miles up the San Joaquin Valley from which I can develop between three and four hundred thousand electric horsepower-

er." Think for a moment of this. Not a city of that valley can take one atom of these natural resources once belonging to all the people, which he by the use of a small amount of money at his command has gotten the control of, and he has a right to hold out these great resources of power and to dole it out to hundreds of thousands of the people of this country who may have use for it, and let them have it at his own sweet will. Why gentlemen, the very thought of that sort of thing is a thought of horror to me. I do not believe that any one man imbued with the selfishness which we know influences and controls us all, however good we may be—I do not believe that one man should be allowed to secure control of these huge natural resources which at one time belonged to all of the people—resources that would set a hundred thousand looms in motion, that rightly employed, would give comfort and employment to a quarter of a million of men. I do not believe that any one man should be permitted to lock these resources up and hold them—hold something that belonged to all the people at one time, and dispose of them as he sees best, and for whatever price he may be able to exact. And bear in mind that not a city or community in that great valley which may need that power to light its streets and to turn the humming wheels of its industries, and to bring comfort and convenience to its inhabitants, can avail themselves of one atom of those great resources which at one time belonged to all the people, without the permission of this man. Do you think the United States Government acted as a careful trustee in permitting one man, because he had a few dollars at his command, to become the owner of those enormous natural resources which once belonged to all the people, and should either continue to belong to them, or be so handled by the trustee originally holding them as to insure the people having the use of them when they may be needed, and at reasonable rates? And by the way, I believe that some of those enterprises owned by the gentleman of whom I am speaking are the clients of the gentleman who has just preceded me on this rostrum. This gentleman stated a moment ago that

he was an attorney. Do you thing the United States Government—I want to repeat the question and I want an answer from the bottom of your hearts as honest men and good citizens—acted as a faithful trustee of the people's resources in surrendering them in the instance that I have just recited? Do you thing the people of this country acted wisely in perimitting a condition of that sort to arise?

Now, there are certain kinds of mining which naturally lend themselves to the control of capital and monopoly. For instance: it requires a great deal of capital to successfully exploit and control and get results from a copper mine on account of the costly processes you have to employ. That fact has worked out this way. I do not think I have to tell you gentlemen who are miners, that there are a few interests in the United States that if they could combine, and they will combine sometime, unless the Government takes steps to prevent it—can absolutely control the production and the price of a metal which has become, in this present age of electricity, one of the most absolutely necessary things to our civilization. It is the same with oil. You not only have to have the oil wells, but in order to avail yourself of an oil property you must have transportation. One of the previous speakers said in his speech this morning that if you let the Government control, prices would go all to the deuce. His idea as expressed to you was that the supervision of the government would destroy prices, and that it was unthinkable that anything but competition should regulate the price of oil. Now, I want to tell you just how much competition regulates the price of oil. It happens that I have an interest in an oil company which operates in the Midway Field. The company was rather lucky in developing a number of wells—very good wells; one a very large well; one of the greatest in that field, in fact—within the last two or three months, so the Company began to consider the marketing of its product, and we took the matter up. What did we find? The report of our manager to us was, “You have to sell to one of three organizations, because those three control the transportation,” and we actually

had to contract to deliver two million barrels of oil at 25 cents a barrel, when that quality of oil is selling at the present time in Los Angeles for what—85 cents per barrel.

At a distance of 125 miles from Los Angeles we sold our oil at 25 cents a barrel because we controlled no transportation, and that oil is sold in Los Angeles at 85 cents a barrel by the purchaser who controls transportation.

Now, there never was a more idle thought uttered by the babbling tongue of an idiot than to say that competition in the production of oil controls prices at the present time. It doesn't do anything of the kind, as a regular thing, and it has not done it since the Standard Oil first got into full operation in this country.

I want to say another thing to you—that within the State of California, as great as our oil fields are, there are four interests which control today the largest percentage of the discovered oil land in the State, and these four interests control all the transportation, and these four interests could combine—as they probably will sometime if not prevented by the government—and the entire oil industry, now and for years to come, probably the greatest in the Nation, will be completely in their control.

Now, as I understand it, conservation means that the Government proposes to prevent these oil resources getting out of its possession faster than the interests of the people require. Why, I know one company in California, composed largely of friends and acquaintances of mine, whose officers say that they own 300,000 acres of oil land in this state. And they say that for fifty years they will be getting oil out of their land, and they will keep that oil locked up there, and turn it out as extensively as they want to, and at a price they think they ought to have for it, provided they are able either by their own control of production, or possibly by combination with other great interests, to regulate the price. Now, do you know what is going to be the result of this condition if it is allowed to continue? In ten years—in five years, possibly—there won't be an acre of oil land to be had by a private individual in this State. And then the

wealthy companies with the transportation facilities will get together, as they have done already, for practically the price of certain petroleum products is now controlled by agreement between these companies, and nearly all the proven oil land is also controlled by them, and they will continue to absorb and absorb until two or three companies will own it all, and then one company or combination will get that, and will repeat for this country the experience that the Standard Oil Company gave the East for so many years.

As I understand conservation, the Government says this: "We propose to let the people have this land just as rapidly as its production can be used, and we propose to dispose of the land under conditions which will prevent all or a considerable part of it becoming the subject of a monopoly." And I want to say right here that as a matter of good faith, the Government must make good the title to every man who has gone on a piece of oil land and independently and in good faith developed that land before the change was made in the law. It must do it. It cannot afford to do anything else, because the Government cannot afford to indulge in bad faith to its citizens. But as to the land that was not entered upon at the time that the change was made in the law, as I understand it, the Government proposes to say "We will hold this land until it is needed." I do not understand that the government proposes to extort an excessive royalty for the exploitation of its mineral lands. On the contrary, I understand that the royalty is to be practically a minimum. I have read very carefully the conservation literature that has been produced by this movement since it started, because I have been intensely interested in it, and I very much favor it and I have never seen any such statement as was quoted by Mr. Smith this morning to the effect that the Government proposes to allow the man who exploits the land a fair interest on his investment, and to take all the rest. On the contrary, as I understand conservation, what the government will ask will be a minimum—a very small return, sufficient perhaps to carry on the admin-

istration of the department. But the main thing will be this—that the land shall be held by the Government so that the Government can see that it goes to parties who will not permit it to get into the hands of those who will entirely monopolize its products, and thus use it for the oppression of the people. And it appears to me that any statement to the effect that the Government proposes to allow the man who exploits its mineral resources only a fair interest on his money, and will take all the rest, is not only without authority but is a gratuitous attempt to prejudice the conservation movement.

We talk about this magnificent period of progress and prosperity we have been having in this country. Yes, it has been a very prosperous country. But the signs are changing, gentlemen. A man must be blind and deaf who cannot see and hear the warning that every intelligent thinking man must have seen and heard from the things that have been appearing upon the surface in the developments of the last ten years. For instance: there was a time when the iron and coal mines of this country were offered to anybody who would exploit them. These mines have become largely controlled—monopolized. And the advantage which the people have obtained from this monopoly may be gauged by a recent occurrence in the East which I will cite. A short time ago an investigation was made by some very intelligent men of the highest character—a commission appointed by an organization of people who are interested in the betterment of social conditions, especially of the laboring classes—something which one of the speakers rather sneeringly referred to as “uplift” a while ago. These investigators found over 9,000 men working in one of the steel works—The Bethlehem Works. The owners of these works were using the natural resources of the country—using the coal and iron that had gone out of the possession of the people at one time for nothing, and the men who were reducing these natural resources to commercial form—the laboring people—were working at an average wage of \$1.58 a day, and seven days a week, and 12 hours or over a day. That is,

over 48 per cent of the 9,000 were so working. That is the way the natural resources are being used by those who have monopolized them in certain localities for the benefit of the people. We do not want them so used by men who may own them in the State of California. God save the State of California from repeating that sort of experience! I say to you that I had rather risk the government of the United States as the trustee of the natural resources, which are the property of all the people, that my boys may have a chance to handle some of them, than I would risk the gentleman whom I have just quoted as stating to me that he and his companies had monopolized over 300,000 horse power of water of this State, as good a citizen and man as he is.

It is to prevent evils of this sort, gentlemen, as I understand conservation applied to the California oil fields. But the government does not propose to take land away from anybody who went on it previous to the change of policy by the Government, and undertook to develop it in good faith; but it does propose that land which had not been entered on before the order of withdrawal, shall be held by the government until its mineral contents are needed, and when needed, the land is to be given out in a way that will prevent its ever becoming the subject of monopoly. And that is what we want. That is what every good citizen should want, and it is what we have got to have in this country, gentlemen, unless the majority of the people of this country want to sink eventually into a state of peonage and be governed by a sort of power that is worse than anything Rome ever dreamed of, to which the gentlemen referred a moment ago. The power that in the history of the world has been proven to be most intolerable—a plutocracy, infinitely worse than an aristocracy. The governments that have witnessed the greatest oppression, as shown by the history of the world, have been founded upon plutocracy, and we do not want that sort of thing in our country; and for that reason I want the Government of the United States to act as a real trustee of those natural resources which are now the property of all the people, and let these resources go out for the

benefit of citizens as they are needed and in such a way as to prevent their ever being monopolized and made the instrumentality of oppression to the people who originally owned them.

ADDRESS OF MR. GEO. E. WHITTAKER,
Los Angeles, Calif.

Mr. President and Members of this Congress: Being engaged in the oil mining business myself, and also representing a great number of individuals and companies engaged in said business, I have listened with great interest to the discussions which have taken place both yesterday and today relative to this matter, and to say the least the discussions have proven greatly instructive.

I wish to say, however, that I must entirely disagree with the views expressed by Mr. Fox, for whom I have the utmost respect, in regard to the California oil industry.

The American Mining Congress is, as I understand, composed of about 1,300 members, representing energy, brains, wealth and influence, the latter two qualities naturally following as a sequence upon the former. It has now been organized about 13 years.

For five years past the Congress has been endeavoring to have a Bureau of Mines created, with the result that it has at last succeeded, due, in a great measure, to the assistance rendered by the members of the Sierra Madre Club, of this City, who, at their own expense and time, have furnished largely the means and methods for achieving the result which has been accomplished.

This Congress is composed of metal miners, coal miners, quartz miners and placer miners. It has been sought by some persons, including Mr. Fox, to draw a distinction between oil and placer miners, but under the mineral laws of the United States, gentlemen, oil has been classed as a placer mineral, and is governed by the same rules and regulations that apply to placer mining claims. The same form of location, the same annual expenditure, the same discovery of

mineral, and the same amount of expenditure has to be made in order to obtain a patent for the claim.

As was remarked by your President, I think, last night, one of the objects and purposes of the organization of this body was to show to the miners of all classes that "in unity there is strength," and as to this there is absolutely no question.

It has been suggested that the metal miners, as distinguished from the oil miners, might seek to control all mining legislation, but, gentlemen, every miner, no matter whether he is a coal miner, quartz miner, placer miner, or oil miner is built on broad-gauged principles, and he will not seek or desire to control legislation on any branch of the mining industry which is independent and distinct from that particular branch pursued by him.

What I do say is this, that I believe it to be most advisable for the executive committees of the various oil operators' associations to get together and suggest, in the form of a resolution, what proposed Act or law they desire Congress to pass in regard to the oil mining industry, and have this Congress endorse and support it, and if such is done, and if you endorse and support it, I believe it will add great strength and efficiency to the measure.

This Congress represents all of the mineral states in the Union, and possibly others. Naturally the members of it are in touch with their respective Senators, Congressmen and other influential people.

I firmly believe, gentlemen, that if a vote was taken today you would find the majority of the oil operators in favor of affiliating with your body, and having your endorsement, believing that you could and would add strength and force to their cause.

Now these are the conditions that exist in the oil mining industry today, and the difficulties and hardships the operators are confronted with.

Up to July of 1908, eight men forming an association among themselves could, under the mineral laws of the United States, make a placer location on supposed oil land

of 160 acres, or a quarter section, twenty acres to each locator.

After the making of such location it was the custom for the locators to transfer their rights in such locations to one man, who acted as trustee for the others. In a great many instances this transfer was made for the purpose of obtaining capital to develop the claim, lack of capital being not uncommon to miners, for as a rule they are not men of wealth when they engage in the industry and very often not at the finish.

They, therefore, assigned or sold a portion of their interests in the claim to a third party who proceeded to drill the well and develop oil, and upon so doing an application for patent was filed for the claim and a patent obtained for the whole 160 acres.

Now it takes, according to the different fields, from three months to two years to drill and complete a well, and the expense ranges all the way from \$5,000.00 to \$50,000.00.

In July, 1908, the former rulings of the Department of the Interior in regard to the granting of patents for oil lands, and according to which hundreds of patents had already been granted, were completely reversed, and a new ruling made in what is now known as the "Yard case," holding that where an assignment had been made by the original locators of an oil claim to a third party prior to discovery of oil a subsequent discovery did not validate the original location, and could, at best, only validate twenty acres.

After that decision was rendered another ruling was made by the Department that the discovery of mineral had to precede, or exist at the time the location was made, and a discovery after location could not relate back and validate the location.

In addition to that it was held by the Department that where an attorney-in-fact had been appointed by the locators of a claim to apply for a patent for it in their behalf after a discovery of mineral had been made upon the claim, and any of the locators resided in the Land District wherein

the claim was situated the application would not be received and not only that, but no subsequent application for patent for the claim could be made by the locators themselves.

Now, gentlemen, without discussing the legal question, I say this. Men who have gone upon these lands under the mining laws of the United States, and the Statutes relating to same, have made mineral filings thereon, and have suffered the hardships and privations incident to the occupation of mining, and who have faithfully expended their time and money in seeking to wrest the mineral from these desert lands, are entitled to justice, and I do not believe that our Government can afford to repudiate their claims and say that because through ignorance, and basing their right upon a custom which has existed for years and been recognized by the Interior Department, that having transferred their interests to one of their number, or a third party, prior to the discovery of mineral, they are not entitled to a patent for the claim.

In addition to that, I say that any miners who went upon these desert lands and expended their money, their time, and their labor, in seeking to develop the mineral contained therein, and who before they had succeeded in discovering and developing that mineral, which takes all the way from six months to three years, were at the time of the order of withdrawal in the actual occupancy of said land, and were in good faith engaged in drilling operations for such mineral, I say they have an equitable right in those lands, and the Government of the United States is under the highest moral obligation to see that they are protected in their occupancy, and the lands patented to them after discovery.

It is true that some of the questions I have referred to are pending in court and before the Secretary of the Interior for final decision, but you all know what litigation means, and the length of time before it is determined.

So that I say the oil miners need your hearty co-operation in approving and endorsing such Bill or Act for their relief as they may see fit to present, through their repre-

sentatives in the next Congress, and I sincerely hope that you will give us such co-operation.

Now as to the leasing proposition:

Mr. Graham remarked, and he did so in the utmost good faith I am sure, that a great many people had located oil lands for speculative purposes, and afterwards transferred their rights therein, and that large corporations were operating the same and deriving the benefit, and that what should be done in order to remedy this abuse would be to put the leases up at auction. Gentlemen, and Members of this Congress, what earthly show in such event would a poor man have who had just about a grub-stake to his name to obtain one of these leases as against a rich corporation.

Again, let me tell you this, when these poor miners first went out into what is known as the West Side Oil Fields of Kern county, made mining locations on these desert lands, and camped in huts and lived the best they could under the circumstances, it attracted the attention of men of means to the territory, and believing the same to be mineral lands they put upon them State lieu selections, Forest lieu selections, Desert entries, and Homestead entries. What do you think they put them on for. Was it for the purpose of making their homes there, or for the purpose of reclaiming these arid, barren and unproductive desert lands, or for the purpose of raising cattle or grain, or any agricultural purposes. No, gentlemen, those selections and entries were made by those parties solely and only for the purpose of obtaining title to valuable mineral lands under the guise of agricultural lands. Can you blame the miner for seeking to enlist capital to help him develop his claim, discover the mineral, and defeat such selections and entries. No.

Now, gentlemen, as to the withdrawal order:

Congressman Smith stated that in his opinion not any one of the three methods which he had seen proposed and discussed by certain newspapers for the purpose of regulating the control of oil bearing lands belonging to the United States was practical or feasible, and I thoroughly agree with him.

I believe that letting the law remain as it is, with certain minor amendments, is the most practical solution of our difficulties. It is no doubt true that in the past certain large interests have acquired large tracts of mineral lands. This was due, I think, to the fact that when our placer mining laws were enacted by Congress, petroleum oil, as a placer mineral, was not contemplated or thought of by the lawmakers. Such evil could, however, be easily corrected, and the law amended so as to relegate each individual, or association, seeking to obtain title to oil lands, to a certain number of acres and no more.

In addition to this, gentlemen, there is one thing that I think should be done, and a law to that effect sought to be passed by the mining interests. It is this. When either an individual, or an association of individuals, file a mineral location upon what is supposed to be mineral land, enter into the occupancy thereof, erect cabins, and proceed in good faith to prepare to drill for oil that they should be absolutely protected in their possession and their rights to the land.

And that they should not, as was mentioned by Mr. Graham, have to resort to either force or arms to prevent their claims being jumped by rich corporations.

In conclusion I wish to say, gentlemen, that the first thing in my mind for the oil men to do, and this Congress to support, is to obtain some law, or Act of Congress, which will protect the men who were upon these lands prior to the withdrawal order of the President, of July 2nd, 1910, and who were at the time of such order actually engaged, in good faith, in spending their money and developing mineral thereon, and preserve their rights to the land whether they had discovered mineral or not at the time of the withdrawal order.

As to lands upon which, at the time of the withdrawal order, work was not being actually proceeded with, although mineral locations had been filed thereon, that is a matter to be taken care of later in my judgment.

All we desire, I take it, is that when any Act of Congress is passed or proposed relating to such lands it will be of such a character as will be equitable and fair to locators of such lands.

ADDRESS OF MR. S. C. GRAHAM,
Los Angeles, Calif.

The first and most important purpose of Federal legislation, regulating the disposition of publicly owned oil lands, should be the prevention of monopoly and securing for the people as large a net return as possible from the sale or rental of these lands.

It is not necessary that the government should give away its oil lands to encourage and promote the oil industry in California. In the Appalachian fields, where oil was first produced and where the business soon grew to enormous proportions, practically all of the land was owned by private individuals. The operators were compelled to compete with one another in the purchase or lease of these lands. The royalty or purchase price varied greatly, depending, as must be the case everywhere, under fair competitive conditions on the richness or supposed richness of the oil deposits. The usual royalty in ordinary territory was about 1-8, but in some instances as high as 1-2 royalty and a considerable sum per acre as a bonus was paid. Under the conditions existing there, venturesome operators, generally operating on leased ground, have drilled thousands of wells miles away from any producing territory—by far the larger number of which were failures. The same conditions have existed in practically all of the oil fields in the eastern half of the United States.

If in the East, oil lands had been publicly owned and the Government had exacted from the operators just the same terms they were compelled to make with private owners, can any one possessing a grain of common sense assume that development and production there, would have been in any way checked or retarded? But here in the West, where a large portion of the lands containing oil are publicly owned, the assertion is made by some of those engaged

in the business of producing oil, that if the Government were to exact a royalty or ask for compensation of any kind in any way commensurate with the value of the lands, drilling would at once stop and the oil industry here would be ruined. Most of the men who are making this assertion, have themselves purchased or leased land from private owners and bought claims and locations on Government land, and that too, in most instances, land upon which no work had been done.

Their position is that, while they are willing to pay to some one to whom the Government has given the land, a good stiff price for it, it would be an outrage if they were asked to purchase or lease it from the Government direct.

The Southern Pacific Railway Company holds, under grant, each alternate section in the richest oil fields in the State. I think most of the men who are in favor of continuing the old conditions, will agree with me that whatever the legal status of the case may be, the railroad company has no moral right to these lands, but while they are denouncing the Southern Pacific for having wrongfully secured possession of these valuable lands, they are at the same time asking the Government to give them the rest of it.

A good deal of indignation is expressed in some quarters that any one should advocate a change in the law that would secure for the Government some return for the property it owns. In the opinion of some, the man who is advocating the disposition of Government owned lands under fair competitive conditions, is at the best a socialist with a strong tendency toward anarchy,

I submit that any man in any business ought to be willing to operate under fair competitive conditions, and if he is not willing, he should be compelled to submit to such conditions. Under fair competition in the business of producing oil, as in everything else, a man will secure what his ability and his industry entitle him to. Any one wanting or demanding more should receive no consideration whatever.

If advocating a change that will result in giving to each man what he is justly and fairly entitled to, no more and no

less, is socialism, then I am a socialist. But I contend that my position and that of others who are advocating the same principles, is the reverse of socialism. The idea entertained that all of the publicly owned lands belong to the men engaged in the oil business is absolutely a mistaken one. Their interest in these lands is just the same as that of any other citizen of the United States.

The only way in which the value of these lands can be distributed among the real owners, is to secure for them as much as any one is willing to give. If there is any other way to accomplish it, it has not yet been called to my attention.

It has been said that the oil men who go into new districts and take the risk of spending their money where they may receive no return, should, when successful, be entitled to keep for themselves whatever the land contained. The fact is, that generally only one man or corporation is interested in drilling the first well in a district. If they are successful, not only the value of the land which they hold is enhanced, but also that of sometimes thousands of acres of adjoining property. The assertion made by some that those who have participated in no way in the risk connected in drilling the first well, should be given the adjoining land, seems to me without foundation in justice or in reason.

The men putting down the first well do deserve consideration, and under fair conditions, they would receive it, because they would secure their land at the minimum cost fixed by law. When a well has been started in an unproven section, the practice has been general for others than those engaged in the enterprise, and who were fortunate enough to be located in the vicinity, to file claims upon adjacent land and to hold it without any cost to themselves until the territory was proven.

Some of the best posted men in the business claim that no piece of land is proven oil territory until it is producing oil. This in a sense is true, but that does not alter the fact that lands adjoining producing territory have a large prospective or speculative value. That is, they would sell for a

big price because of the strong probability that they contained oil.

If a private individual owned the property adjoining or in the vicinity of the producing well, his right to dispose of his holdings to the person willing to give the most for it, would not be questioned by any one. There would seem to be no good and sufficient reason why the people should not have the same right in disposing of the property belonging to themselves.

The present law, even if the spirit of it were observed, would be vicious, because it encourages and almost compels wasteful and uneconomic development.

Today in the Kern County fields, there are more strings of tools running than in all of the other fields of the State combined. Drilling is not being done there for the purpose of producing oil to meet the requirements of the market, but because that is the only way in which title to the land can be secured.

Oil is being produced for which there is no market and of which a large portion is lost through evaporation, seepage and leakage; and this waste is reducing the fuel supply upon which the industries of this coast must depend in the future.

But the spirit of the law is not observed. Men who, themselves, have had no intention of doing any development work have located thousands of acres of land for the purpose of turning over their claims to those financially able to do the work required by law.

A short time ago I received a copy of the records in the land office in Kern County, which records show that large tracts of land have been filed upon recently by comparatively few men, one group of men, and presumably only one man using seven names with his own, have located almost 6,000 acres of land. Most of these locations were filed two months after the withdrawal order had been issued by the Secretary of the Interior.

It would be interesting to know what disposition was made of these lands, whether they have found their way

into the hands of the large corporations, and if so, what the locator or locators received in exchange for them.

I do not know whether the claims to which I have referred, were among those held by gun men employed by locators or their successors in interest but it is a matter of common knowledge that large tracts of Government land were taken possession of and held by force, the prize going to the man or corporation able to hire the largest number of guns, and I rather suspect that these are the men who want the present law, with probably some slight modifications, to continue in force for the benefit of the poor prospector.

When the Secretary of the Interior issued the withdrawal order on September 27 of last year, a large number of those engaged in the oil business regarded that order as valid, binding and proper in every way, and because of that, refrained from filing or entering upon any of the withdrawn lands. Other men engaged in the oil business took a different view of the matter and went forward making locations, and beginning work on the withdrawn lands, the same as if the order had not been issued. They claimed that the Secretary of the Interior had no power to legally withdraw these lands, that they had just as good a right to them as if the withdrawn order had never been issued.

I have taken no legal advice in the matter, but I do not agree with them. The Secretary of the Interior has for years been withdrawing lands of all kinds from entry and his right to do so has never been questioned. It is hard for the layman to understand how, if the Secretary of the Interior has had the right all these years to withdraw coal lands, timber lands, and water power sites from entry, he should not also have the right to withdraw oil lands from entry, when, in his judgment, the public welfare made it necessary. The Courts may sustain those taking the opposite view, but their position is not logical when they assume that the first duty of every man engaged in the oil business, is to get back of them and support them in their attempt to hold the withdrawn lands of which they have taken possession. If they hold these lands properly and

legally, changing the conditions under which the oil lands shall be disposed of in the future could in no way affect their rights. If they do not hold these lands properly and legally, they are not entitled to them, and should not be assisted in their efforts to retain them, and this without any regard to how much work they have done or how much money they have spent on the withdrawn lands.

I can assure these men there is no inclination on the part of any one to deprive them of what is rightfully theirs, but there is a very strong disposition on the part of a great many to have the Government take whatever action is necessary to restore to the public domain, lands that are being wrongfully held by private interests.

The large companies operating in California fields are opposed to any radical change in the law, because they say it would prevent the poor man or the man of small means from going into the business. Some of their representatives talk earnestly about the rights of the man who goes out and toils in the sun, and makes the discovery of oil deposits, and how outrageous it would be if he were deprived of the opportunity to secure the reward his efforts and his sufferings entitled him to.

I wish to say, that there probably has been no undeveloped territory in the State brought to the attention of the real operators by any one who has been engaged on his own account in the sort of work described. Probably 95 per cent of the locators of oil lands have taken it without any idea of ever developing it, but of simply placing themselves in a position where they could demand of the man who did want to develop, a money consideration for that privilege. Further than that, most of the land located and disposed of by these men, who are not operators in any sense of the word, has been taken by them as closely as possible either to producing territory or to wells being drilled by others which, if successful, would make the property they were holding valuable. There are men in this state who have become rich in this manner, and that without having risked one dollar of their own in developing new oil territory.

The men who locate in this way, for the purpose of selling, usually go to the big producing companies with their holdings when they wish to dispose of them. For that reason the effect has been almost the same as if the large companies had been employing dummies to locate the land. If the method of securing land is not changed in the near future, a few corporations working in harmony, will control the source of the fuel supply on this coast.

A plea that is being made to the Western people in favor of the continuance of the old condition, is that the East has been permitted to dispose of its publicly owned property without any Government interference whatever, and that the people of the West should demand the same right.

I do not and cannot believe the people of the West can be persuaded to advocate a continuance of conditions that is almost certain to result in monopoly. If monopoly is established in the West, the Western people themselves will be the principal sufferers. It would make very little difference to the people living in Pennsylvania or New York whether or not a fuel monopoly existed in California. They might even see an advantage in that condition to themselves, as it would very much restrict the territory in which manufactures of this state could compete with similar products of their own.

It is the old states' rights idea over again, but I believe the National spirit in this country has become so strong that such a plea can no longer be made effective.

In conclusion I wish to say that the Government owned oil lands should be leased in comparatively small parcels, and to secure uniformity and equality the law must be National.

The royalty should be a cash amount per barrel rather than a portion of the oil, so there would be no reason for Government interference with the sale of the product after it was on top of the ground. In connection with the leasing system there ought to be competition as well, the leases in every case going to the highest bidder; and to prevent monopoly, the amount of Government land that might be held

under lease by any individual or any corporation should be restricted.

I have been told such a law would mean confiscation, but I must say, I cannot understand how a law dealing with the disposition of Government land, to which no private individual has ever had any claim, can properly be regarded as confiscation.

One thing is certain, radical change in the law is inevitable, and there can be no question but that if the oil men of this State get together and exert their influence to secure fair, just and equitable legislation, they will succeed.

Will they do it?



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